

Results manual clustering

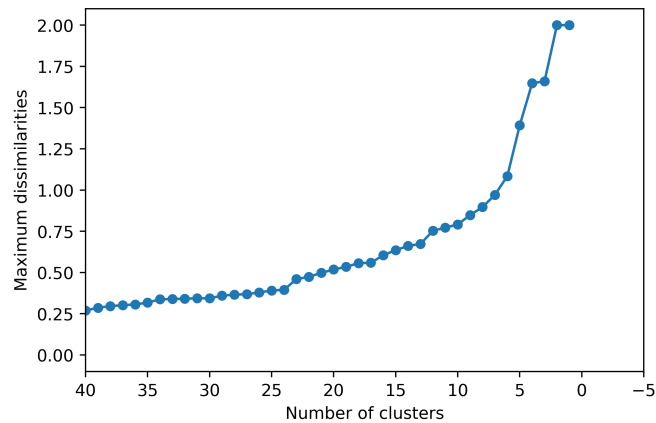
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Data source: BOAT data - all ribs
Type of Clustering: Conventional clustering
Chosen hours: from 1 to 10
Chosen days: from 21/07/2018 to 15/09/2018
The coordinates chosen are: []
The date filters chosen are: ['20180721', '20180722', '20180723', '20180724', '20180807', '20180808', '20180810', '20180905']
Dataset has 447 elements
Elapsed time to normalize data with space average speed was: 0.067 s

1 Manual clustering infos

Generation of complete dendrogram:
The hierarchical clustering algorithm execution time was 87.002 s



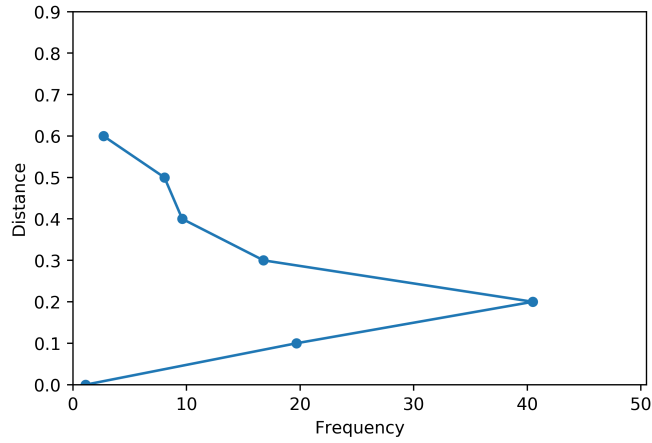
Hierarchical clustering for k values chosen:
The hierarchical clustering algorithm execution time was 69.825 s

2 K-means infos

The chosen k are: [6]

3 Manual clustering results, k = 6

3.1 Threshold



The threshold chosen is: 0.60

Execution time of k-means: 2.247 s
 Number of iterations in k-means: 14
 Elements that have changed cluster: 176
 Number of outliers with distance greater than threshold: 12
 Number of outliers with their own cluster: 0

Number of clusters: 6

Table 1: Averages of meteorological parameters (1)

Cluster	TWS	TWD	Pressure	Temp.	Temp. at ground	Humidity	Precipitation
1	10.20	211.06	1008.52	27.81	28.59	84.34	0.12
2	9.67	188.92	1007.99	28.21	29.00	84.42	1.10
3	8.96	69.60	1013.71	26.03	27.43	72.21	1.68
4	10.52	241.39	1009.69	27.99	28.29	83.29	0.05
5	5.82	132.28	1007.90	27.57	28.32	81.75	1.94
6	6.80	18.44	1013.80	25.02	26.57	79.70	3.47
7	9.14	301.16	1006.93	28.06	28.54	85.86	0.00

Table 2: Averages of meteorological parameters (2)

Cluster	Low cloud coverage	Medium cc.	High cc.	Total cc.	Gust	Land cover surface
1	0.44	3.52	8.66	12.20	16.33	0.12
2	0.56	0.48	5.59	6.51	13.41	0.12
3	16.27	9.28	11.76	28.30	12.89	0.12
4	0.33	2.01	6.39	8.04	19.85	0.12
5	0.52	0.01	8.47	8.58	13.45	0.12
6	31.84	23.43	16.04	49.51	12.70	0.12
7	0.40	0.00	8.35	8.75	13.97	0.12

Cluster	N° elements	Relative freq	Min temp	Avg temp	Max temp	Min humid.	Avg humid.	Max humid.
1	106	23.71	26.62	27.81	29.31	75.63	84.34	89.99
2	105	23.49	26.74	28.21	29.36	77.97	84.42	91.73
3	93	20.81	23.16	26.03	28.03	59.70	72.21	92.61
4	49	10.96	26.62	27.99	29.15	77.71	83.29	91.05
5	48	10.74	25.26	27.57	29.15	67.36	81.75	90.51
6	34	7.61	22.57	25.02	29.15	68.97	79.70	90.29
7	12	2.68	27.06	28.06	29.25	80.00	85.86	91.28

Cluster	Min precipit	Avg precipit	Max Precipit	Min pressure	Avg pressure	Max pressure
1	0.000	0.119	2.033	1003.066	1008.515	1015.681
2	0.000	1.105	10.633	1003.112	1007.989	1015.421
3	0.000	1.679	14.000	997.862	1013.707	1023.184
4	0.000	0.048	2.033	1003.061	1009.689	1013.271
5	0.000	1.937	14.000	997.694	1007.899	1019.783
6	0.000	3.471	10.983	1004.662	1013.797	1021.131
7	0.000	0.000	0.002	1003.061	1006.933	1012.997

Cluster	Min Gust	Avg Gust	Max Gust	Min HCC	Avg HCC	Max HCC	Min LCC	Avg LCC	Max LCC
1	3.798	16.326	29.756	0.000	8.663	72.586	0.000	0.445	6.663
2	4.658	13.412	29.321	0.000	5.590	84.011	0.000	0.556	6.663
3	4.843	12.890	30.320	0.000	11.761	92.942	0.000	16.270	97.698
4	2.945	19.854	29.601	0.000	6.388	67.389	0.000	0.334	5.354
5	3.073	13.445	30.152	0.000	8.472	67.611	0.000	0.523	3.509
6	3.921	12.701	23.338	0.000	16.040	66.066	0.000	31.841	97.698
7	4.403	13.971	21.010	0.000	8.349	54.788	0.000	0.400	2.394

Cluster	Min LCS	Avg LCS	Max LCS	Min MCC	Avg MCC	Max MCC
1	0.120	0.120	0.120	0.000	3.519	42.117
2	0.120	0.120	0.120	0.000	0.477	42.117
3	0.120	0.120	0.120	0.000	9.285	93.389
4	0.120	0.120	0.120	0.000	2.010	77.238
5	0.120	0.120	0.120	0.000	0.007	0.185
6	0.120	0.120	0.120	0.000	23.428	89.595
7	0.120	0.120	0.120	0.000	0.000	0.000

Cluster	Min TG	Avg TG	Max TG	Min TCC	Avg TCC	Max TCC
1	26.703	28.589	30.311	0.000	12.195	72.586
2	26.920	29.004	30.174	0.000	6.508	84.011
3	24.779	27.432	29.333	0.000	28.303	97.698
4	26.720	28.295	30.288	0.000	8.045	77.418
5	25.895	28.321	30.178	0.000	8.578	67.611
6	24.680	26.569	28.671	0.000	49.509	97.698
7	27.705	28.543	29.124	0.000	8.749	54.788

Cluster	Min speed	Avg speed	Max speed	Min direction	Avg direction	Max direction
1	4.182	10.198	20.627	181.544	211.061	346.361
2	3.013	9.671	20.251	15.774	188.923	352.419
3	2.161	8.962	16.967	0.691	69.604	343.895
4	2.254	10.520	18.978	4.427	241.386	356.053
5	1.934	5.816	10.650	13.149	132.283	348.913
6	3.232	6.804	13.915	4.052	18.442	348.701
7	3.738	9.143	17.875	1.769	301.159	352.109

Table 3: Ranges of TEMPERATURE (in °C):

Cluster	[22.568, 23.927)	[23.927, 25.286)	[25.286, 26.645)	[26.645, 28.003)	[28.003, 29.362]
1	0.00%	0.00%	0.61%	35.76%	63.64%
2	0.00%	0.00%	0.00%	23.70%	76.30%
3	5.92%	35.51%	8.10%	49.84%	0.62%
4	0.00%	0.00%	1.65%	41.32%	57.02%
5	0.00%	0.91%	18.18%	41.82%	39.09%
6	27.54%	37.68%	17.39%	11.59%	5.80%
7	0.00%	0.00%	0.00%	44.00%	56.00%

Table 4: Ranges of HUMIDITY (in %):

Cluster	[59.700, 66.282)	[66.282, 72.863)	[72.863, 79.444)	[79.444, 86.025)	[86.025, 92.607]
1	0.00%	0.00%	15.45%	51.21%	33.33%
2	0.00%	0.00%	5.49%	57.80%	36.71%
3	31.46%	45.17%	3.12%	18.07%	2.18%
4	0.00%	0.00%	11.57%	67.77%	20.66%
5	0.00%	8.18%	9.09%	55.45%	27.27%
6	0.00%	42.03%	11.59%	31.88%	14.49%
7	0.00%	0.00%	0.00%	52.00%	48.00%

Table 5: Ranges of PRECIPITATION (in mm/h):

Cluster	[0.000, 2.800)	[2.800, 5.600)	[5.600, 8.400)	[8.400, 11.200)	[11.200, 14.000]
1	100.00%	0.00%	0.00%	0.00%	0.00%
2	90.17%	0.00%	0.00%	9.83%	0.00%
3	81.62%	10.59%	6.85%	0.31%	0.62%
4	100.00%	0.00%	0.00%	0.00%	0.00%
5	89.09%	0.00%	0.00%	3.64%	7.27%
6	68.12%	0.00%	26.09%	5.80%	0.00%
7	100.00%	0.00%	0.00%	0.00%	0.00%

Table 6: Ranges of PRESSURE (in hPa):

Cluster	[998, 1003)	[1003, 1008)	[1008, 1013)	[1013, 1018)	[1018, 1023]
1	0.00%	53.94%	42.12%	3.94%	0.00%
2	0.00%	69.65%	28.90%	1.45%	0.00%
3	0.62%	11.53%	45.48%	3.12%	39.25%
4	0.00%	18.18%	77.69%	4.13%	0.00%
5	7.27%	28.18%	63.64%	0.00%	0.91%
6	0.00%	8.70%	13.04%	69.57%	8.70%
7	0.00%	84.00%	12.00%	4.00%	0.00%

Table 7: Ranges of GUST (in knots):

Cluster	[2.945, 8.420)	[8.420, 13.895)	[13.895, 19.370)	[19.370, 24.845)	[24.845, 30.320]
1	35.45%	26.67%	7.27%	7.27%	23.33%
2	11.85%	56.07%	22.25%	7.23%	2.60%
3	26.48%	26.79%	38.32%	7.79%	0.62%
4	9.92%	21.49%	11.57%	25.62%	31.40%
5	38.18%	33.64%	19.09%	1.82%	7.27%
6	13.04%	31.88%	52.17%	2.90%	0.00%
7	4.00%	56.00%	20.00%	20.00%	0.00%

Table 8: Ranges of HIGH CLOUD COVERAGE (in %):

Cluster	[0.000, 18.588)	[18.588, 37.177)	[37.177, 55.765)	[55.765, 74.353)	[74.353, 92.942]
1	84.55%	6.06%	1.82%	7.58%	0.00%
2	91.62%	3.18%	4.34%	0.00%	0.87%
3	86.60%	4.98%	4.98%	2.18%	1.25%
4	90.91%	4.96%	3.31%	0.83%	0.00%
5	86.36%	9.09%	1.82%	2.73%	0.00%
6	49.28%	21.74%	2.90%	26.09%	0.00%
7	80.00%	0.00%	20.00%	0.00%	0.00%

Table 9: Ranges of LOW CLOUD COVERAGE (in %):

Cluster	[0.000, 19.540)	[19.540, 39.079)	[39.079, 58.618)	[58.618, 78.158)	[78.158, 97.698]
1	100.00%	0.00%	0.00%	0.00%	0.00%
2	100.00%	0.00%	0.00%	0.00%	0.00%
3	78.50%	4.05%	7.79%	7.79%	1.87%
4	100.00%	0.00%	0.00%	0.00%	0.00%
5	100.00%	0.00%	0.00%	0.00%	0.00%
6	63.77%	10.14%	0.00%	0.00%	26.09%
7	100.00%	0.00%	0.00%	0.00%	0.00%

Table 10: Ranges of LAND COVER SURFACE (in m²):

Cluster	[0.120, 0.120)	[0.120, 0.120)	[0.120, 0.120)	[0.120, 0.120)	[0.120, 0.120]
1	0.00%	0.00%	0.00%	0.00%	100.00%
2	0.00%	0.00%	0.00%	0.00%	100.00%
3	0.00%	0.00%	0.00%	0.00%	100.00%
4	0.00%	0.00%	0.00%	0.00%	100.00%
5	0.00%	0.00%	0.00%	0.00%	100.00%
6	0.00%	0.00%	0.00%	0.00%	100.00%
7	0.00%	0.00%	0.00%	0.00%	100.00%

Table 11: Ranges of MEDIUM CLOUD COVERAGE (in %):

Cluster	[0.000, 18.678)	[18.678, 37.356)	[37.356, 56.033)	[56.033, 74.711)	[74.711, 93.389]
1	92.42%	7.27%	0.30%	0.00%	0.00%
2	99.71%	0.00%	0.29%	0.00%	0.00%
3	91.90%	0.00%	5.30%	0.93%	1.87%
4	99.17%	0.00%	0.00%	0.00%	0.83%
5	100.00%	0.00%	0.00%	0.00%	0.00%
6	79.71%	0.00%	0.00%	2.90%	17.39%
7	100.00%	0.00%	0.00%	0.00%	0.00%

Table 12: Ranges of TEMPERATURE AT GROUND (in °C):

Cluster	[24.680, 25.806)	[25.806, 26.932)	[26.932, 28.058)	[28.058, 29.185)	[29.185, 30.311]
1	0.00%	5.45%	22.12%	19.70%	52.73%
2	0.00%	0.29%	6.07%	40.75%	52.89%
3	3.43%	39.56%	4.36%	40.50%	12.15%
4	0.00%	4.13%	16.53%	67.77%	11.57%
5	0.00%	4.55%	29.09%	40.00%	26.36%
6	31.88%	2.90%	55.07%	10.14%	0.00%
7	0.00%	0.00%	4.00%	96.00%	0.00%

Table 13: Ranges of TOTAL CLOUD COVERAGE (in %):

Cluster	[0.000, 19.540)	[19.540, 39.079)	[39.079, 58.618)	[58.618, 78.158)	[78.158, 97.698]
1	76.36%	11.21%	3.03%	9.39%	0.00%
2	89.31%	7.80%	2.02%	0.00%	0.87%
3	59.50%	9.03%	18.07%	9.97%	3.43%
4	89.26%	4.96%	4.96%	0.83%	0.00%
5	86.36%	9.09%	2.73%	1.82%	0.00%
6	17.39%	23.19%	5.80%	26.09%	27.54%
7	80.00%	12.00%	8.00%	0.00%	0.00%

Table 14: Wind speed ranges (in knots)

Cluster	[0, 5)	[5, 10)	[10, 15)	[15, 20)	[20, 20.63]
1	4.55%	63.94%	18.79%	12.42%	0.30%
2	7.80%	47.98%	33.53%	10.40%	0.29%
3	9.35%	44.86%	41.74%	4.05%	0.00%
4	9.92%	41.32%	24.79%	23.97%	0.00%
5	30.00%	66.36%	3.64%	0.00%	0.00%
6	18.84%	78.26%	2.90%	0.00%	0.00%
7	12.00%	44.00%	36.00%	8.00%	0.00%

Table 15: Wind direction ranges

Cluster	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.76%	66.97%	6.36%	0.30%	0.30%	0.00%	0.00%	0.30%
2	0.58%	0.58%	0.87%	0.58%	0.87%	0.29%	0.58%	12.72%	72.83%	7.23%	1.45%	0.58%	0.00%	0.00%	0.58%	0.29%
3	0.31%	2.49%	43.93%	41.74%	9.66%	1.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.62%
4	4.13%	0.83%	1.65%	0.00%	0.83%	0.00%	0.00%	0.83%	3.31%	29.75%	36.36%	6.61%	2.48%	4.13%	4.13%	4.96%
5	0.91%	0.00%	0.91%	7.27%	14.55%	33.64%	16.36%	16.36%	6.36%	0.91%	0.91%	0.00%	0.00%	0.91%	0.00%	0.91%
6	46.38%	27.54%	5.80%	0.00%	1.45%	0.00%	0.00%	2.90%	1.45%	1.45%	0.00%	0.00%	1.45%	2.90%	2.90%	5.80%
****7****	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	0.00%	0.00%	0.00%	8.00%	4.00%	4.00%	36.00%	8.00%	8.00%	8.00%

Table 16: Transition matrix

Cluster	1	2	3	4	5	6
1	58.51	25.53	1.06	14.89	0.00	0.00
2	21.11	60.00	1.11	8.89	6.67	2.22
3	0.00	2.56	80.77	0.00	14.10	2.56
4	26.32	13.16	7.89	36.84	7.89	7.89
5	0.00	24.24	15.15	3.03	57.58	0.00
6	0.00	3.70	33.33	0.00	3.70	59.26

Table 17: Ranges of DIFF. TEMPERATURE (in °C):

Transition	[-0.666, -0.423)	[-0.423, -0.180)	[-0.180, 0.063)	[0.063, 0.306)	[0.306, 0.549]
1-1	0.00%	0.00%	65.45%	34.55%	0.00%
1-2	0.00%	4.17%	62.50%	29.17%	4.17%
1-3	0.00%	0.00%	100.00%	0.00%	0.00%
1-4	0.00%	0.00%	64.29%	35.71%	0.00%
2-1	0.00%	0.00%	78.95%	21.05%	0.00%
2-2	0.00%	3.70%	70.37%	25.93%	0.00%
2-3	0.00%	0.00%	100.00%	0.00%	0.00%
2-4	0.00%	12.50%	50.00%	12.50%	25.00%
2-5	0.00%	16.67%	83.33%	0.00%	0.00%
2-6	0.00%	0.00%	100.00%	0.00%	0.00%
3-2	0.00%	0.00%	100.00%	0.00%	0.00%
3-3	0.00%	6.35%	28.57%	41.27%	23.81%
3-5	18.18%	18.18%	36.36%	18.18%	9.09%
3-6	0.00%	0.00%	50.00%	50.00%	0.00%
4-1	0.00%	0.00%	50.00%	50.00%	0.00%
4-2	0.00%	20.00%	20.00%	60.00%	0.00%
4-3	0.00%	33.33%	66.67%	0.00%	0.00%
4-4	0.00%	7.14%	57.14%	35.71%	0.00%
4-5	0.00%	0.00%	100.00%	0.00%	0.00%
4-6	0.00%	0.00%	100.00%	0.00%	0.00%
5-2	0.00%	12.50%	50.00%	37.50%	0.00%
5-3	0.00%	0.00%	60.00%	20.00%	20.00%
5-4	0.00%	0.00%	100.00%	0.00%	0.00%
5-5	10.53%	21.05%	57.89%	10.53%	0.00%
6-2	0.00%	0.00%	100.00%	0.00%	0.00%
6-3	0.00%	22.22%	0.00%	44.44%	33.33%
6-5	0.00%	0.00%	100.00%	0.00%	0.00%
6-6	0.00%	12.50%	6.25%	68.75%	12.50%

Table 18: Ranges of DIFF. HUMIDITY (in %):

Transition	[-3.286, -1.577)	[-1.577, 0.131)	[0.131, 1.839)	[1.839, 3.548)	[3.548, 5.256]
1-1	5.45%	45.45%	41.82%	7.27%	0.00%
1-2	12.50%	41.67%	37.50%	8.33%	0.00%
1-3	0.00%	0.00%	100.00%	0.00%	0.00%
1-4	14.29%	42.86%	42.86%	0.00%	0.00%
2-1	10.53%	31.58%	52.63%	5.26%	0.00%
2-2	0.00%	38.89%	50.00%	11.11%	0.00%
2-3	0.00%	0.00%	100.00%	0.00%	0.00%
2-4	25.00%	37.50%	12.50%	25.00%	0.00%
2-5	0.00%	0.00%	100.00%	0.00%	0.00%
2-6	0.00%	0.00%	100.00%	0.00%	0.00%
3-2	0.00%	0.00%	100.00%	0.00%	0.00%
3-3	19.05%	46.03%	28.57%	6.35%	0.00%
3-5	18.18%	0.00%	45.45%	18.18%	18.18%
3-6	0.00%	50.00%	50.00%	0.00%	0.00%
4-1	20.00%	60.00%	20.00%	0.00%	0.00%
4-2	40.00%	20.00%	20.00%	20.00%	0.00%
4-3	0.00%	0.00%	100.00%	0.00%	0.00%
4-4	7.14%	71.43%	14.29%	7.14%	0.00%
4-5	0.00%	33.33%	33.33%	33.33%	0.00%
4-6	0.00%	0.00%	100.00%	0.00%	0.00%
5-2	12.50%	25.00%	50.00%	12.50%	0.00%
5-3	40.00%	20.00%	40.00%	0.00%	0.00%
5-4	0.00%	0.00%	100.00%	0.00%	0.00%
5-5	5.26%	0.00%	68.42%	15.79%	10.53%
6-2	0.00%	0.00%	100.00%	0.00%	0.00%
6-3	11.11%	66.67%	0.00%	22.22%	0.00%
6-5	0.00%	0.00%	100.00%	0.00%	0.00%
6-6	25.00%	56.25%	12.50%	6.25%	0.00%

Table 19: Ranges of DIFF. PRECIPITATION (in mm/h):

Transition	[-0.000, 0.178)	[0.178, 0.356)	[0.356, 0.534)	[0.534, 0.712)	[0.712, 0.890]
1-1	98.18%	1.82%	0.00%	0.00%	0.00%
1-2	95.83%	4.17%	0.00%	0.00%	0.00%
1-3	100.00%	0.00%	0.00%	0.00%	0.00%
1-4	100.00%	0.00%	0.00%	0.00%	0.00%
2-1	89.47%	5.26%	0.00%	0.00%	5.26%
2-2	92.59%	1.85%	0.00%	3.70%	1.85%
2-3	100.00%	0.00%	0.00%	0.00%	0.00%
2-4	100.00%	0.00%	0.00%	0.00%	0.00%
2-5	100.00%	0.00%	0.00%	0.00%	0.00%
2-6	100.00%	0.00%	0.00%	0.00%	0.00%
3-2	100.00%	0.00%	0.00%	0.00%	0.00%
3-3	100.00%	0.00%	0.00%	0.00%	0.00%
3-5	100.00%	0.00%	0.00%	0.00%	0.00%
3-6	100.00%	0.00%	0.00%	0.00%	0.00%
4-1	100.00%	0.00%	0.00%	0.00%	0.00%
4-2	100.00%	0.00%	0.00%	0.00%	0.00%
4-3	100.00%	0.00%	0.00%	0.00%	0.00%
4-4	100.00%	0.00%	0.00%	0.00%	0.00%
4-5	100.00%	0.00%	0.00%	0.00%	0.00%
4-6	100.00%	0.00%	0.00%	0.00%	0.00%
5-2	100.00%	0.00%	0.00%	0.00%	0.00%
5-3	100.00%	0.00%	0.00%	0.00%	0.00%
5-4	100.00%	0.00%	0.00%	0.00%	0.00%
5-5	100.00%	0.00%	0.00%	0.00%	0.00%
6-2	100.00%	0.00%	0.00%	0.00%	0.00%
6-3	100.00%	0.00%	0.00%	0.00%	0.00%
6-5	100.00%	0.00%	0.00%	0.00%	0.00%
6-6	100.00%	0.00%	0.00%	0.00%	0.00%

Table 20: Ranges of DIFF. PRESSURE (in hPa):

Transition	[-1, -0)	[-0, -0)	[-0, 0)	[0, 0)	[0, 1]
1-1	3.64%	45.45%	47.27%	3.64%	0.00%
1-2	4.17%	58.33%	37.50%	0.00%	0.00%
1-3	0.00%	100.00%	0.00%	0.00%	0.00%
1-4	14.29%	42.86%	35.71%	7.14%	0.00%
2-1	5.26%	68.42%	26.32%	0.00%	0.00%
2-2	7.41%	55.56%	25.93%	11.11%	0.00%
2-3	0.00%	0.00%	0.00%	100.00%	0.00%
2-4	25.00%	50.00%	25.00%	0.00%	0.00%
2-5	33.33%	16.67%	50.00%	0.00%	0.00%
2-6	0.00%	100.00%	0.00%	0.00%	0.00%
3-2	0.00%	0.00%	100.00%	0.00%	0.00%
3-3	19.05%	39.68%	39.68%	1.59%	0.00%
3-5	9.09%	45.45%	27.27%	18.18%	0.00%
3-6	0.00%	0.00%	100.00%	0.00%	0.00%
4-1	10.00%	60.00%	30.00%	0.00%	0.00%
4-2	20.00%	60.00%	20.00%	0.00%	0.00%
4-3	0.00%	66.67%	33.33%	0.00%	0.00%
4-4	42.86%	28.57%	21.43%	0.00%	7.14%
4-5	0.00%	0.00%	100.00%	0.00%	0.00%
4-6	0.00%	0.00%	100.00%	0.00%	0.00%
5-2	12.50%	37.50%	25.00%	25.00%	0.00%
5-3	60.00%	20.00%	20.00%	0.00%	0.00%
5-4	0.00%	100.00%	0.00%	0.00%	0.00%
5-5	5.26%	57.89%	15.79%	10.53%	10.53%
6-2	0.00%	0.00%	100.00%	0.00%	0.00%
6-3	0.00%	55.56%	22.22%	22.22%	0.00%
6-5	0.00%	100.00%	0.00%	0.00%	0.00%
6-6	12.50%	62.50%	25.00%	0.00%	0.00%

Table 21: Ranges of DIFF. GUST (in knots):

Transition	[-2.997, -1.724)	[-1.724, -0.451)	[-0.451, 0.822)	[0.822, 2.096)	[2.096, 3.369]
1-1	0.00%	5.45%	56.36%	36.36%	1.82%
1-2	0.00%	8.33%	25.00%	54.17%	12.50%
1-3	0.00%	0.00%	0.00%	0.00%	100.00%
1-4	0.00%	28.57%	28.57%	21.43%	21.43%
2-1	0.00%	10.53%	42.11%	36.84%	10.53%
2-2	0.00%	14.81%	20.37%	44.44%	20.37%
2-3	0.00%	100.00%	0.00%	0.00%	0.00%
2-4	0.00%	0.00%	50.00%	12.50%	37.50%
2-5	0.00%	0.00%	33.33%	66.67%	0.00%
2-6	0.00%	0.00%	100.00%	0.00%	0.00%
3-2	0.00%	0.00%	0.00%	100.00%	0.00%
3-3	7.94%	39.68%	42.86%	9.52%	0.00%
3-5	0.00%	9.09%	27.27%	36.36%	27.27%
3-6	0.00%	100.00%	0.00%	0.00%	0.00%
4-1	0.00%	10.00%	40.00%	40.00%	10.00%
4-2	0.00%	0.00%	20.00%	60.00%	20.00%
4-3	33.33%	33.33%	33.33%	0.00%	0.00%
4-4	7.14%	0.00%	21.43%	28.57%	42.86%
4-5	0.00%	0.00%	66.67%	33.33%	0.00%
4-6	0.00%	100.00%	0.00%	0.00%	0.00%
5-2	0.00%	12.50%	25.00%	37.50%	25.00%
5-3	0.00%	20.00%	40.00%	0.00%	40.00%
5-4	0.00%	0.00%	0.00%	100.00%	0.00%
5-5	0.00%	10.53%	21.05%	36.84%	31.58%
6-2	0.00%	0.00%	100.00%	0.00%	0.00%
6-3	22.22%	55.56%	0.00%	22.22%	0.00%
6-5	0.00%	0.00%	0.00%	0.00%	100.00%
6-6	25.00%	50.00%	12.50%	12.50%	0.00%

Table 22: Ranges of DIFF. HIGH CLOUD COVERAGE (in %):

Transition	[-65.145, -36.380)	[-36.380, -7.615)	[-7.615, 21.151)	[21.151, 49.916)	[49.916, 78.681]
1-1	1.82%	1.82%	94.55%	1.82%	0.00%
1-2	4.17%	12.50%	79.17%	0.00%	4.17%
1-3	0.00%	0.00%	100.00%	0.00%	0.00%
1-4	0.00%	7.14%	85.71%	7.14%	0.00%
2-1	0.00%	5.26%	78.95%	15.79%	0.00%
2-2	0.00%	14.81%	79.63%	5.56%	0.00%
2-3	0.00%	0.00%	100.00%	0.00%	0.00%
2-4	0.00%	0.00%	100.00%	0.00%	0.00%
2-5	0.00%	0.00%	100.00%	0.00%	0.00%
2-6	0.00%	0.00%	100.00%	0.00%	0.00%
3-2	0.00%	0.00%	100.00%	0.00%	0.00%
3-3	3.17%	6.35%	79.37%	7.94%	3.17%
3-5	0.00%	0.00%	72.73%	18.18%	9.09%
3-6	0.00%	0.00%	100.00%	0.00%	0.00%
4-1	0.00%	0.00%	100.00%	0.00%	0.00%
4-2	0.00%	20.00%	80.00%	0.00%	0.00%
4-3	0.00%	0.00%	66.67%	33.33%	0.00%
4-4	0.00%	14.29%	85.71%	0.00%	0.00%
4-5	0.00%	33.33%	66.67%	0.00%	0.00%
4-6	0.00%	0.00%	100.00%	0.00%	0.00%
5-2	0.00%	25.00%	62.50%	12.50%	0.00%
5-3	0.00%	0.00%	100.00%	0.00%	0.00%
5-4	0.00%	100.00%	0.00%	0.00%	0.00%
5-5	10.53%	10.53%	78.95%	0.00%	0.00%
6-2	0.00%	0.00%	100.00%	0.00%	0.00%
6-3	0.00%	11.11%	77.78%	11.11%	0.00%
6-5	0.00%	0.00%	100.00%	0.00%	0.00%
6-6	0.00%	0.00%	93.75%	6.25%	0.00%

Table 23: Ranges of DIFF. LOW CLOUD COVERAGE (in %):

Transition	[-25.914, -18.554)	[-18.554, -11.193)	[-11.193, -3.833)	[-3.833, 3.528)	[3.528, 10.888]
1-1	0.00%	0.00%	0.00%	100.00%	0.00%
1-2	0.00%	0.00%	0.00%	100.00%	0.00%
1-3	0.00%	0.00%	0.00%	100.00%	0.00%
1-4	0.00%	0.00%	0.00%	100.00%	0.00%
2-1	0.00%	0.00%	0.00%	100.00%	0.00%
2-2	0.00%	0.00%	0.00%	100.00%	0.00%
2-3	0.00%	0.00%	0.00%	100.00%	0.00%
2-4	0.00%	0.00%	0.00%	100.00%	0.00%
2-5	0.00%	0.00%	0.00%	100.00%	0.00%
2-6	0.00%	0.00%	0.00%	100.00%	0.00%
3-2	0.00%	0.00%	0.00%	100.00%	0.00%
3-3	1.59%	3.17%	19.05%	58.73%	17.46%
3-5	0.00%	0.00%	0.00%	100.00%	0.00%
3-6	0.00%	0.00%	50.00%	50.00%	0.00%
4-1	0.00%	0.00%	0.00%	100.00%	0.00%
4-2	0.00%	0.00%	0.00%	100.00%	0.00%
4-3	0.00%	0.00%	0.00%	100.00%	0.00%
4-4	0.00%	0.00%	14.29%	85.71%	0.00%
4-5	0.00%	0.00%	0.00%	100.00%	0.00%
4-6	0.00%	0.00%	0.00%	100.00%	0.00%
5-2	0.00%	0.00%	0.00%	100.00%	0.00%
5-3	0.00%	0.00%	0.00%	100.00%	0.00%
5-4	0.00%	0.00%	0.00%	100.00%	0.00%
5-5	0.00%	0.00%	0.00%	100.00%	0.00%
6-2	0.00%	0.00%	0.00%	100.00%	0.00%
6-3	11.11%	0.00%	22.22%	44.44%	22.22%
6-5	0.00%	0.00%	0.00%	100.00%	0.00%
6-6	0.00%	12.50%	18.75%	56.25%	12.50%

Table 24: Ranges of DIFF. MEDIUM CLOUD COVERAGE (in %):

Transition	[-64.843, -41.247)	[-41.247, -17.650)	[-17.650, 5.946)	[5.946, 29.542)	[29.542, 53.138]
1-1	0.00%	0.00%	87.27%	12.73%	0.00%
1-2	0.00%	0.00%	95.83%	4.17%	0.00%
1-3	0.00%	0.00%	100.00%	0.00%	0.00%
1-4	0.00%	0.00%	92.86%	0.00%	7.14%
2-1	0.00%	0.00%	94.74%	5.26%	0.00%
2-2	0.00%	0.00%	100.00%	0.00%	0.00%
2-3	0.00%	0.00%	0.00%	0.00%	100.00%
2-4	0.00%	0.00%	100.00%	0.00%	0.00%
2-5	0.00%	0.00%	100.00%	0.00%	0.00%
2-6	0.00%	0.00%	100.00%	0.00%	0.00%
3-2	0.00%	0.00%	100.00%	0.00%	0.00%
3-3	0.00%	0.00%	92.06%	4.76%	3.17%
3-5	0.00%	0.00%	100.00%	0.00%	0.00%
3-6	0.00%	0.00%	50.00%	50.00%	0.00%
4-1	0.00%	0.00%	90.00%	10.00%	0.00%
4-2	0.00%	0.00%	100.00%	0.00%	0.00%
4-3	0.00%	0.00%	66.67%	33.33%	0.00%
4-4	0.00%	0.00%	100.00%	0.00%	0.00%
4-5	0.00%	0.00%	100.00%	0.00%	0.00%
4-6	0.00%	0.00%	100.00%	0.00%	0.00%
5-2	0.00%	0.00%	100.00%	0.00%	0.00%
5-3	0.00%	0.00%	100.00%	0.00%	0.00%
5-4	0.00%	0.00%	100.00%	0.00%	0.00%
5-5	0.00%	0.00%	100.00%	0.00%	0.00%
6-2	0.00%	0.00%	100.00%	0.00%	0.00%
6-3	0.00%	0.00%	88.89%	0.00%	11.11%
6-5	0.00%	0.00%	100.00%	0.00%	0.00%
6-6	12.50%	0.00%	56.25%	18.75%	12.50%

Table 25: Ranges of DIFF. TEMPERATURE AT GROUND (in °C):

Transition	[-0.420, -0.239)	[-0.239, -0.058)	[-0.058, 0.124)	[0.124, 0.305)	[0.305, 0.487]
1-1	16.36%	34.55%	25.45%	23.64%	0.00%
1-2	37.50%	16.67%	20.83%	16.67%	8.33%
1-3	0.00%	100.00%	0.00%	0.00%	0.00%
1-4	21.43%	28.57%	35.71%	14.29%	0.00%
2-1	31.58%	15.79%	36.84%	10.53%	5.26%
2-2	20.37%	37.04%	31.48%	9.26%	1.85%
2-3	0.00%	100.00%	0.00%	0.00%	0.00%
2-4	25.00%	62.50%	0.00%	12.50%	0.00%
2-5	66.67%	33.33%	0.00%	0.00%	0.00%
2-6	100.00%	0.00%	0.00%	0.00%	0.00%
3-2	100.00%	0.00%	0.00%	0.00%	0.00%
3-3	12.70%	25.40%	34.92%	22.22%	4.76%
3-5	45.45%	36.36%	9.09%	9.09%	0.00%
3-6	50.00%	0.00%	0.00%	50.00%	0.00%
4-1	0.00%	40.00%	30.00%	30.00%	0.00%
4-2	40.00%	20.00%	40.00%	0.00%	0.00%
4-3	66.67%	33.33%	0.00%	0.00%	0.00%
4-4	28.57%	42.86%	21.43%	7.14%	0.00%
4-5	66.67%	33.33%	0.00%	0.00%	0.00%
4-6	66.67%	33.33%	0.00%	0.00%	0.00%
5-2	25.00%	37.50%	37.50%	0.00%	0.00%
5-3	20.00%	40.00%	20.00%	20.00%	0.00%
5-4	0.00%	100.00%	0.00%	0.00%	0.00%
5-5	31.58%	52.63%	5.26%	10.53%	0.00%
6-2	100.00%	0.00%	0.00%	0.00%	0.00%
6-3	33.33%	22.22%	11.11%	0.00%	33.33%
6-5	0.00%	100.00%	0.00%	0.00%	0.00%
6-6	6.25%	25.00%	50.00%	18.75%	0.00%

Table 26: Ranges of DIFF. TOTAL CLOUD COVERAGE (in %):

Transition	[-65.272, -36.481)	[-36.481, -7.691)	[-7.691, 21.100)	[21.100, 49.890)	[49.890, 78.681]
1-1	1.82%	1.82%	90.91%	5.45%	0.00%
1-2	4.17%	8.33%	83.33%	0.00%	4.17%
1-3	0.00%	0.00%	100.00%	0.00%	0.00%
1-4	0.00%	7.14%	78.57%	14.29%	0.00%
2-1	0.00%	5.26%	78.95%	15.79%	0.00%
2-2	0.00%	12.96%	81.48%	5.56%	0.00%
2-3	0.00%	0.00%	0.00%	100.00%	0.00%
2-4	0.00%	0.00%	100.00%	0.00%	0.00%
2-5	0.00%	0.00%	100.00%	0.00%	0.00%
2-6	0.00%	0.00%	100.00%	0.00%	0.00%
3-2	0.00%	0.00%	100.00%	0.00%	0.00%
3-3	0.00%	22.22%	65.08%	12.70%	0.00%
3-5	0.00%	0.00%	72.73%	27.27%	0.00%
3-6	0.00%	0.00%	100.00%	0.00%	0.00%
4-1	0.00%	0.00%	100.00%	0.00%	0.00%
4-2	0.00%	20.00%	80.00%	0.00%	0.00%
4-3	0.00%	0.00%	100.00%	0.00%	0.00%
4-4	0.00%	14.29%	85.71%	0.00%	0.00%
4-5	0.00%	33.33%	66.67%	0.00%	0.00%
4-6	0.00%	0.00%	100.00%	0.00%	0.00%
5-2	0.00%	12.50%	75.00%	12.50%	0.00%
5-3	0.00%	0.00%	100.00%	0.00%	0.00%
5-4	0.00%	100.00%	0.00%	0.00%	0.00%
5-5	10.53%	10.53%	78.95%	0.00%	0.00%
6-2	0.00%	0.00%	100.00%	0.00%	0.00%
6-3	0.00%	22.22%	55.56%	22.22%	0.00%
6-5	0.00%	0.00%	100.00%	0.00%	0.00%
6-6	0.00%	0.00%	81.25%	18.75%	0.00%

Table 27: Ranges of DIFF. TWS (in knots):

Transition	[-10.441, -6.623)	[-6.623, -2.804)	[-2.804, 1.015)	[1.015, 4.834)	[4.834, 8.653]
1-1	0.00%	1.82%	72.73%	23.64%	1.82%
1-2	0.00%	12.50%	62.50%	20.83%	4.17%
1-3	0.00%	0.00%	100.00%	0.00%	0.00%
1-4	14.29%	35.71%	21.43%	21.43%	7.14%
2-1	0.00%	0.00%	84.21%	15.79%	0.00%
2-2	0.00%	3.70%	64.81%	31.48%	0.00%
2-3	0.00%	100.00%	0.00%	0.00%	0.00%
2-4	0.00%	0.00%	87.50%	0.00%	12.50%
2-5	0.00%	16.67%	83.33%	0.00%	0.00%
2-6	0.00%	50.00%	50.00%	0.00%	0.00%
3-2	0.00%	0.00%	0.00%	100.00%	0.00%
3-3	0.00%	7.94%	66.67%	25.40%	0.00%
3-5	9.09%	9.09%	63.64%	18.18%	0.00%
3-6	0.00%	0.00%	100.00%	0.00%	0.00%
4-1	0.00%	20.00%	70.00%	10.00%	0.00%
4-2	0.00%	0.00%	40.00%	60.00%	0.00%
4-3	33.33%	0.00%	33.33%	33.33%	0.00%
4-4	7.14%	0.00%	50.00%	35.71%	7.14%
4-5	0.00%	0.00%	100.00%	0.00%	0.00%
4-6	0.00%	33.33%	0.00%	66.67%	0.00%
5-2	0.00%	0.00%	62.50%	25.00%	12.50%
5-3	0.00%	0.00%	80.00%	20.00%	0.00%
5-4	0.00%	0.00%	100.00%	0.00%	0.00%
5-5	0.00%	10.53%	52.63%	36.84%	0.00%
6-2	0.00%	0.00%	100.00%	0.00%	0.00%
6-3	0.00%	11.11%	77.78%	11.11%	0.00%
6-5	0.00%	0.00%	100.00%	0.00%	0.00%
6-6	0.00%	0.00%	81.25%	18.75%	0.00%

Table 28: Ranges of DIFF. TWD (in degrees):

Transition	[-172.748, -104.545)	[-104.545, -36.343)	[-36.343, 31.859)	[31.859, 100.061)	[100.061, 168.264]
1-1	0.00%	0.00%	100.00%	0.00%	0.00%
1-2	0.00%	8.33%	91.67%	0.00%	0.00%
1-3	0.00%	0.00%	100.00%	0.00%	0.00%
1-4	0.00%	0.00%	71.43%	28.57%	0.00%
2-1	0.00%	0.00%	89.47%	10.53%	0.00%
2-2	0.00%	0.00%	100.00%	0.00%	0.00%
2-3	100.00%	0.00%	0.00%	0.00%	0.00%
2-4	0.00%	0.00%	25.00%	75.00%	0.00%
2-5	0.00%	33.33%	66.67%	0.00%	0.00%
2-6	50.00%	0.00%	0.00%	0.00%	50.00%
3-2	0.00%	0.00%	100.00%	0.00%	0.00%
3-3	0.00%	0.00%	95.24%	4.76%	0.00%
3-5	0.00%	0.00%	36.36%	63.64%	0.00%
3-6	0.00%	50.00%	50.00%	0.00%	0.00%
4-1	0.00%	10.00%	90.00%	0.00%	0.00%
4-2	0.00%	60.00%	20.00%	20.00%	0.00%
4-3	33.33%	0.00%	0.00%	0.00%	66.67%
4-4	0.00%	0.00%	100.00%	0.00%	0.00%
4-5	0.00%	100.00%	0.00%	0.00%	0.00%
4-6	0.00%	0.00%	0.00%	66.67%	33.33%
5-2	0.00%	0.00%	25.00%	75.00%	0.00%
5-3	0.00%	40.00%	60.00%	0.00%	0.00%
5-4	0.00%	0.00%	0.00%	100.00%	0.00%
5-5	0.00%	0.00%	94.74%	5.26%	0.00%
6-2	0.00%	0.00%	100.00%	0.00%	0.00%
6-3	0.00%	0.00%	55.56%	44.44%	0.00%
6-5	0.00%	0.00%	0.00%	100.00%	0.00%
6-6	0.00%	0.00%	93.75%	6.25%	0.00%

Transition's meteorological parameters' average values:

Table 29: Transition 1-1: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	25.00% (1)	75.00% (3)	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	8.00% (4)	92.00% (46)	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 1-1 ([180-202.5) - [180-202.5)): Range level average differences

diff_temp: -0.07837951660156506

diff_humidity: 0.2312999999999903

diff_precipitation: 0.0

diff_pressure: -0.19295227050781705

diff_gust: -0.5834131835937519

diff_high_cloud_coverage: 0.0

diff_low_cloud_coverage: 0.0

diff_medium_cloud_coverage: 0.0

diff_temperature_at_ground: -0.3121399999999994

diff_total_cloud_coverage: 0.0

diff_tws: 0.6825000000000028

diff_twd: 1.7835569808623006

Transition 1-1 ([180-202.5) - [202.5-225)): Range level average differences

diff_temp: 0.03064715657522416

diff_humidity: -0.1213008138020939

diff_precipitation: 0.0803000000000011

diff_pressure: -0.1842649332682337

diff_gust: 1.2701815420786537

diff_high_cloud_coverage: 0.6569999999999999

diff_low_cloud_coverage: -0.5580666666666662

diff_medium_cloud_coverage: 0.02256666666666846

diff_temperature_at_ground: 0.044623333333323245

diff_total_cloud_coverage: -0.1867999999999927
diff_tws: -1.0221598226586746
diff_twd: 9.474752445793655

Transition 1-1 ([202.5-225] - [180-202.5]): Range level average differences

diff_temp: 0.03841439038086136
diff_humidity: 0.46770000000001133
diff_precipitation: 0.001274999999999914
diff_pressure: -0.10101837158202898
diff_gust: 0.969457752990722
diff_high_cloud_coverage: -16.28625
diff_low_cloud_coverage: -0.08462500000000003
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.03810999999999787
diff_total_cloud_coverage: -16.318
diff_tws: 0.4315398326417494
diff_twd: -6.06695994053544

Transition 1-1 ([202.5-225] - [202.5-225]): Range level average differences

diff_temp: 0.008890886166779171
diff_humidity: 0.011145758322015809
diff_precipitation: 0.004006521739130442
diff_pressure: -0.09858826347018966
diff_gust: 0.5994461392609962
diff_high_cloud_coverage: 2.9581608695652157
diff_low_cloud_coverage: -0.10383065217391305
diff_medium_cloud_coverage: 1.727365217391305
diff_temperature_at_ground: -0.06051152173913134
diff_total_cloud_coverage: 4.52646902173913
diff_tws: -0.06154618164343994
diff_twd: -0.39269659920674554

Transition 1-1 ([225-247.5] - [202.5-225]): Range level average differences

diff_temp: 0.15131199999999367
diff_humidity: 0.81300000000000592
diff_precipitation: 0.0
diff_pressure: -0.12890258789070685
diff_gust: 1.1281512451171842
diff_high_cloud_coverage: -0.9175000000000006

diff_low_cloud_coverage: 0.0
 diff_medium_cloud_coverage: -0.17719999999999997
 diff_temperature_at_ground: 0.227249999999999795
 diff_total_cloud_coverage: -0.9671999999999999
 diff_tws: 1.7369510487224198
 diff_twd: -5.675290598408424

Transition 1-1: Overall level average differences
 diff_temp: 0.013227495969459695
 diff_humidity: 0.05570731711648255
 diff_precipitation: 0.007823636363636375
 diff_pressure: -0.10570515025745574
 diff_gust: 0.6510479291950565
 diff_high_cloud_coverage: 1.3087981818181804
 diff_low_cloud_coverage: -0.12343472727272724
 diff_medium_cloud_coverage: 1.4427145454545454
 diff_temperature_at_ground: -0.05249072727272845
 diff_total_cloud_coverage: 2.5712359090909085
 diff_tws: -0.03185442625972442
 diff_twd: -0.01563377868826773

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Table 30: Transition 1-2: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	12.50% (1)	87.50% (7)	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	100.00% (16)	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 1-2 ([180-202.5) - [157.5-180)): Range level average differences
 diff_temp: -0.18990520703125213

diff_humidity: 1.722499999999824
diff_precipitation: 0.0
diff_pressure: -0.04148040771485739
diff_gust: -0.11027119140624997
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.03287
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.362459999999951
diff_total_cloud_coverage: 0.03287
diff_tws: -0.763206978760295
diff_twd: -26.71568688247106

Transition 1-2 ([180-202.5] - [180-202.5]): Range level average differences

diff_temp: 0.11009357854352889
diff_humidity: -0.18812857142858416
diff_precipitation: 0.01844000000000012
diff_pressure: -0.1878191266740714
diff_gust: 0.993825161307199
diff_high_cloud_coverage: 3.635799999999997
diff_low_cloud_coverage: 0.03880285714285746
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: 0.031167142857147008
diff_total_cloud_coverage: 4.189728571428569
diff_tws: 0.6034681469452857
diff_twd: -6.862489705434541

Transition 1-2 ([202.5-225] - [180-202.5]): Range level average differences

diff_temp: 0.014076055419925293
diff_humidity: 0.04598125000000319
diff_precipitation: 0.023173125000000003
diff_pressure: -0.16993803024291765
diff_gust: 1.3152220444202427
diff_high_cloud_coverage: -2.879325
diff_low_cloud_coverage: -0.15787125000000005
diff_medium_cloud_coverage: 1.0797250000000003
diff_temperature_at_ground: -0.11109496063232571
diff_total_cloud_coverage: -3.1315150000000003
diff_tws: -0.044235816538727366
diff_twd: -16.632918612536102

Transition 1-2: Overall level average differences
diff_temp: 0.033581947062177285
diff_humidity: 0.047554166666664344
diff_precipitation: 0.020827083333333336
diff_pressure: -0.16980094909666832
diff_gust: 1.1620857353528347
diff_high_cloud_coverage: -0.8591083333333346
diff_low_cloud_coverage: -0.09256041666666666
diff_medium_cloud_coverage: 0.7198166666666669
diff_temperature_at_ground: -0.08007539042154906
diff_total_cloud_coverage: -0.8643029166666679
diff_tws: 0.11472070771821108
diff_twd: -16.373942087835772

Table 31: Transition 1-3: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 1-3 ([202.5-225) - [67.5-90)): Range level average differences
diff_temp: -0.06576000000000448
diff_humidity: 1.3225000000000335
diff_precipitation: 0.0
diff_pressure: -0.17825378417967386
diff_gust: 2.2781352905273415
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.37008499999999994
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.09290000000000376

diff_total_cloud_coverage: 0.37008499999999994
diff_tws: 0.422841815720495
diff_twd: -136.67925703923268

Transition 1-3: Overall level average differences
diff_temp: -0.06576000000000448
diff_humidity: 1.32250000000000335
diff_precipitation: 0.0
diff_pressure: -0.17825378417967386
diff_gust: 2.2781352905273415
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.37008499999999994
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.09290000000000376
diff_total_cloud_coverage: 0.37008499999999994
diff_tws: 0.422841815720495
diff_twd: -31.922340380558058

Table 32: Transition 1-4: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50.00% (1)	50.00% (1)	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	9.09% (1)	72.73% (8)	18.18% (2)	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 1-4 ([180-202.5) - [225-247.5)): Range level average differences
diff_temp: -0.07837951660156506
diff_humidity: 0.23129999999999903
diff_precipitation: 0.0
diff_pressure: -0.19295227050781705

diff_gust: -0.5834131835937519
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.3121399999999994
diff_total_cloud_coverage: 0.0
diff_tws: -10.441468868011421
diff_twd: 34.62285585602345

Transition 1-4 ([180-202.5) - [247.5-270)): Range level average differences

diff_temp: -0.10307922363281108
diff_humidity: 0.2876999999999299
diff_precipitation: 0.0
diff_pressure: 0.06230651855469205
diff_gust: -0.7387630737304747
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.34562999999998567
diff_total_cloud_coverage: 0.0
diff_tws: -7.652704005837368
diff_twd: 58.25083281735664

Transition 1-4 ([202.5-225) - [202.5-225)): Range level average differences

diff_temp: 0.017756347656252558
diff_humidity: -0.6750000000000398
diff_precipitation: 0.0
diff_pressure: -0.47372802734366815
diff_gust: 2.790919250488276
diff_high_cloud_coverage: 2.384000000000005
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.5976
diff_temperature_at_ground: -0.11418000000000461
diff_total_cloud_coverage: 2.384000000000005
diff_tws: -1.5636512200882118
diff_twd: 6.580483326445346

Transition 1-4 ([202.5-225) - [225-247.5)): Range level average differences

diff_temp: 0.06970068774414795

diff_humidity: -0.351149999999934
diff_precipitation: 0.0
diff_pressure: -0.1965009689331083
diff_gust: 0.9148756195068367
diff_high_cloud_coverage: -3.1600249999999996
diff_low_cloud_coverage: 0.005906250000000001
diff_medium_cloud_coverage: -0.7268249999999997
diff_temperature_at_ground: 0.038307500000000016
diff_total_cloud_coverage: -3.39263125
diff_tws: -0.911774291882296
diff_twd: 11.928572932923153

Transition 1-4 ([202.5-225) - [247.5-270)): Range level average differences

diff_temp: -0.10513399999998896
diff_humidity: 0.3006000000000313
diff_precipitation: 0.0
diff_pressure: 0.13523544311522073
diff_gust: 0.09971084594726243
diff_high_cloud_coverage: 29.917499999999997
diff_low_cloud_coverage: -0.1446999999999999
diff_medium_cloud_coverage: 17.560499999999987
diff_temperature_at_ground: -0.31024334228515116
diff_total_cloud_coverage: 34.890999999999998
diff_tws: -4.208639482512629
diff_twd: 46.30032286369493

Transition 1-4 ([225-247.5) - [247.5-270)): Range level average differences

diff_temp: 0.22909356054686114
diff_humidity: -1.8785999999999774
diff_precipitation: 0.0
diff_pressure: -0.40520324707028976
diff_gust: -0.1256311645507857
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: 0.11917000000000044
diff_total_cloud_coverage: 0.0
diff_tws: 4.267662804069859
diff_twd: 23.411956407893626

Transition 1-4: Overall level average differences
diff_temp: 0.029480619280138804
diff_humidity: -0.30304285714285584
diff_precipitation: 0.0
diff_pressure: -0.165079563685822
diff_gust: 0.6329670340401774
diff_high_cloud_coverage: 2.6384857142857143
diff_low_cloud_coverage: -0.017296428571428556
diff_medium_cloud_coverage: 2.1359999999999983
diff_temperature_at_ground: -0.06905762032644931
diff_total_cloud_coverage: 3.216067857142854
diff_tws: -2.221545327853627
diff_twd: 23.809381910700715

Table 33: Transition 2-1: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	35.29% (6)	64.71% (11)	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 2-1 ([157.5-180) - [202.5-225)): Range level average differences
diff_temp: 0.104502999999999046
diff_humidity: -1.6973999999999592
diff_precipitation: 0.004299999999999998
diff_pressure: -0.26232574462892444
diff_gust: -0.014652246093746157
diff_high_cloud_coverage: 34.033000000000002
diff_low_cloud_coverage: 0.1392
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: 0.0029200000000031423

diff_total_cloud_coverage: 34.03300000000002
diff_tws: -1.3048092440009502
diff_twd: 28.509608081622588

Transition 2-1 ([180-202.5] - [180-202.5]): Range level average differences

diff_temp: -0.010334799479168192
diff_humidity: 0.45605040690103493
diff_precipitation: 0.1482666666666667
diff_pressure: -0.1146662394205767
diff_gust: 0.8621897781372064
diff_high_cloud_coverage: 0.031841666666666664
diff_low_cloud_coverage: -0.3053333333333333
diff_medium_cloud_coverage: -0.006266666666666716
diff_temperature_at_ground: -0.04923999999999218
diff_total_cloud_coverage: -0.3053333333333333
diff_tws: 0.5173153159623785
diff_twd: 6.875199240538957

Transition 2-1 ([180-202.5] - [202.5-225]): Range level average differences

diff_temp: -0.017859413707391525
diff_humidity: 0.18406341441761045
diff_precipitation: 0.03706090909090908
diff_pressure: -0.1905336414684019
diff_gust: 0.7219041140816411
diff_high_cloud_coverage: 5.880600000000004
diff_low_cloud_coverage: -0.11216363636363641
diff_medium_cloud_coverage: 2.698663636363636
diff_temperature_at_ground: -0.08366090909090768
diff_total_cloud_coverage: 5.53977272727273
diff_tws: -0.04996989406983951
diff_twd: 18.065754744575536

Transition 2-1 ([202.5-225] - [202.5-225]): Range level average differences

diff_temp: 0.04478200000001209
diff_humidity: 1.0034000000000134
diff_precipitation: 0.0
diff_pressure: -0.2186721801758722
diff_gust: 1.530940136718753
diff_high_cloud_coverage: 1.5591999999999988

diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.3640100000000075
diff_total_cloud_coverage: 1.5591999999999988
diff_tws: -0.5464356491359382
diff_twd: 10.90271567702473

Transition 2-1: Overall level average differences
diff_temp: -0.005746176192437546
diff_humidity: 0.21405263157894625
diff_precipitation: 0.06850368421052633
diff_pressure: -0.17183502197266726
diff_gust: 0.7700195691761209
diff_high_cloud_coverage: 5.287886842105267
diff_low_cloud_coverage: -0.15403157894736844
diff_medium_cloud_coverage: 1.5604052631578944
diff_temperature_at_ground: -0.08298947368420746
diff_total_cloud_coverage: 4.984089473684214
diff_tws: 0.03699885094048143
diff_twd: 16.10267373295724

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Table 34: Transition 2-2: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	41.67% (5)	58.33% (7)	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	9.76% (4)	90.24% (37)	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 2-2 ([157.5-180) - [157.5-180)): Range level average differences
diff_temp: -0.012248814843746203

diff_humidity: 0.3176000000001015
diff_precipitation: 0.01181999999999099
diff_pressure: 0.09815893554684862
diff_gust: -0.5506047924804666
diff_high_cloud_coverage: 0.263600000000017
diff_low_cloud_coverage: -0.4792800000000026
diff_medium_cloud_coverage: -0.01281200000000007
diff_temperature_at_ground: -0.0405699999999885
diff_total_cloud_coverage: 3.450999999999996
diff_tws: -0.71698691475795
diff_twd: -1.7568017970203187

Transition 2-2 ([157.5-180) - [180-202.5)): Range level average differences

diff_temp: 0.017389429268973293
diff_humidity: 0.13108571428572954
diff_precipitation: 0.0983299999999983
diff_pressure: -0.14610565185543173
diff_gust: 1.4842774875095912
diff_high_cloud_coverage: 4.058835714285715
diff_low_cloud_coverage: -0.07484285714285736
diff_medium_cloud_coverage: -0.0060628571428571155
diff_temperature_at_ground: 0.037587142857148086
diff_total_cloud_coverage: 1.7409142857142856
diff_tws: 0.8751321180999307
diff_twd: 12.740802457970675

Transition 2-2 ([180-202.5) - [157.5-180)): Range level average differences

diff_temp: -0.06634302124023517
diff_humidity: 0.8549499999999988
diff_precipitation: 0.001025000000002757
diff_pressure: -0.013034896850570021
diff_gust: 0.1873327149391184
diff_high_cloud_coverage: 9.918
diff_low_cloud_coverage: -0.30117000000000005
diff_medium_cloud_coverage: -0.00726000000000002
diff_temperature_at_ground: -0.1530699999999987
diff_total_cloud_coverage: 5.915749999999999
diff_tws: -1.5668445053951467
diff_twd: -9.931879851650294

Transition 2-2 ([180-202.5) - [180-202.5)): Range level average differences

diff_temp: 0.004498607791386408
diff_humidity: 0.2368566907728109
diff_precipitation: 0.048075945945945955
diff_pressure: -0.23315635887353117
diff_gust: 1.2373878484880607
diff_high_cloud_coverage: -2.217643243243244
diff_low_cloud_coverage: -0.10843405405405405
diff_medium_cloud_coverage: 0.0030675675675675778
diff_temperature_at_ground: -0.09582891891891934
diff_total_cloud_coverage: -2.2105800000000007
diff_tws: 0.7082253910689433
diff_twd: 0.6333437977833998

Transition 2-2 ([202.5-225) - [180-202.5)): Range level average differences

diff_temp: 0.05650199999998762
diff_humidity: -0.667299999999831
diff_precipitation: 0.0
diff_pressure: -0.122650146484375
diff_gust: 0.9967047119140666
diff_high_cloud_coverage: 5.65
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.13792000000000007
diff_temperature_at_ground: -0.324059999999958
diff_total_cloud_coverage: 6.012
diff_tws: -0.46171429461922187
diff_twd: -21.260221823834257

Transition 2-2: Overall level average differences

diff_temp: 0.0003344506293412237
diff_humidity: 0.25966291775174394
diff_precipitation: 0.04685777777777777
diff_pressure: -0.17284296106409422
diff_gust: 1.0215982299239552
diff_high_cloud_coverage: -0.12964722222222266
diff_low_cloud_coverage: -0.15068592592592597
diff_medium_cloud_coverage: 0.002145925925925937
diff_temperature_at_ground: -0.08188425925925859
diff_total_cloud_coverage: -0.4199085185185193
diff_tws: 0.40770810011594183

diff_twd: 1.259711019226803

Table 35: Transition 2-3: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 2-3 ([180-202.5) - [45-67.5)): Range level average differences

diff_temp: -0.10860999999999166

diff_humidity: 0.5454000000000008

diff_precipitation: 0.0

diff_pressure: 0.25797424316408524

diff_gust: -1.0168400268554834

diff_high_cloud_coverage: 12.95600000000001

diff_low_cloud_coverage: -0.2893999999999998

diff_medium_cloud_coverage: 35.120999999999974

diff_temperature_at_ground: -0.2001566845702989

diff_total_cloud_coverage: 22.902999999999963

diff_tws: -3.3921432667545997

diff_twd: -147.4711587197241

Transition 2-3: Overall level average differences

diff_temp: -0.10860999999999166

diff_humidity: 0.5454000000000008

diff_precipitation: 0.0

diff_pressure: 0.25797424316408524

diff_gust: -1.0168400268554834

diff_high_cloud_coverage: 12.95600000000001

diff_low_cloud_coverage: -0.2893999999999998
diff_medium_cloud_coverage: 35.120999999999974
diff_temperature_at_ground: -0.2001566845702989
diff_total_cloud_coverage: 22.902999999999963
diff_tws: -3.3921432667545997
diff_twd: -147.4711587197241

Table 36: Transition 2-4: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50.00% (2)	50.00% (2)	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00% (2)	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 2-4 ([135-157.5) - [202.5-225)): Range level average differences

diff_temp: 0.007346801757812216
diff_humidity: -0.078400000000008729
diff_precipitation: 0.0
diff_pressure: -0.3778094482421466
diff_gust: 0.2803112182617191
diff_high_cloud_coverage: -1.1129999999999942
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.07400000000000873
diff_total_cloud_coverage: -1.1129999999999942
diff_tws: -1.5878161299960734
diff_twd: 55.04154560717066

Transition 2-4 ([157.5-180) - [202.5-225)): Range level average differences

diff_temp: 0.007346801757812216

diff_humidity: -0.07840000000008729
diff_precipitation: 0.0
diff_pressure: -0.3778094482421466
diff_gust: 0.2803112182617191
diff_high_cloud_coverage: -1.1129999999999942
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.07400000000000873
diff_total_cloud_coverage: -1.1129999999999942
diff_tws: 0.18156790872444883
diff_twd: 52.41167808976297

Transition 2-4 ([180-202.5) - [225-247.5)): Range level average differences

diff_temp: 0.32172900000000304
diff_humidity: -1.9764000000000124
diff_precipitation: 0.0
diff_pressure: -0.44837127685542555
diff_gust: 2.4979692382812475
diff_high_cloud_coverage: -0.1821500000000003
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: 0.001299999999987466
diff_total_cloud_coverage: -0.1821500000000003
diff_tws: 3.3287446043833517
diff_twd: 43.513540741867374

Transition 2-4 ([180-202.5) - [247.5-270)): Range level average differences

diff_temp: -0.15214200000001554
diff_humidity: 2.058850000000014
diff_precipitation: 0.0
diff_pressure: -0.07314727783204944
diff_gust: 0.041161929321294366
diff_high_cloud_coverage: -0.8987500000000003
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.3568900000000035
diff_total_cloud_coverage: -0.8987500000000003
diff_tws: -0.24452412267598003
diff_twd: 60.42113736788963

Transition 2-4 ([202.5-225) - [225-247.5)): Range level average differences

diff_temp: 0.1401109619140577
diff_humidity: -0.2523499999999275
diff_precipitation: 7.2105e-06
diff_pressure: -0.2619192504882335
diff_gust: 2.1669192382812428
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: -0.20597950000000007
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.1886299999999985
diff_total_cloud_coverage: -0.20597950000000007
diff_tws: -0.7274275272250478
diff_twd: 21.357895884802105

Transition 2-4: Overall level average differences

diff_temp: 0.07926119091796435
diff_humidity: -0.06207500000001964
diff_precipitation: 1.802625e-06
diff_pressure: -0.29031181335446377
diff_gust: 1.246590406036376
diff_high_cloud_coverage: -0.5484749999999987
diff_low_cloud_coverage: -0.051494875000000016
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.15455500000000333
diff_total_cloud_coverage: -0.5999698749999987
diff_tws: 0.413417210961628
diff_twd: 36.31379519655286

Table 37: Transition 2-5: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	80.00% (4)	20.00% (1)	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 2-5 ([157.5-180) - [135-157.5)): Range level average differences

diff_temp: -0.16490000000001004
diff_humidity: 1.4861999999999682
diff_precipitation: 0.0
diff_pressure: 0.07155181884763806
diff_gust: 0.0751615234374956
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: -0.03287
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.39250000000000895
diff_total_cloud_coverage: -0.03287
diff_tws: 0.3861522021684074
diff_twd: -28.251243243600555

Transition 2-5 ([180-202.5) - [135-157.5)): Range level average differences

diff_temp: -0.027133462890622795
diff_humidity: 1.0415749999999662
diff_precipitation: 0.0
diff_pressure: -0.2853866577148949
diff_gust: 1.1102904785156245
diff_high_cloud_coverage: 0.3897999999999997
diff_low_cloud_coverage: 0.0082175
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.24762750000000633

diff_total_cloud_coverage: 0.3980174999999997
diff_tws: -1.4209083949438834
diff_twd: -46.029135240234616

Transition 2-5 ([180-202.5] - [157.5-180]): Range level average differences

diff_temp: -0.11879665136717321
diff_humidity: 0.39630000000000818
diff_precipitation: 0.0
diff_pressure: -0.07969085693355282
diff_gust: 1.0924209960937556
diff_high_cloud_coverage: -1.3625999999999991
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.3260500000000093
diff_total_cloud_coverage: -1.3625999999999991
diff_tws: -1.1666666666666667
diff_twd: -35.505678236123714

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Transition 2-5: Overall level average differences

diff_temp: -0.06537175048827908
diff_humidity: 1.008133333333191
diff_precipitation: 0.0
diff_pressure: -0.1916142781575824
diff_gust: 0.9347907389322915
diff_high_cloud_coverage: 0.0327666666666661
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.284843333333406
diff_total_cloud_coverage: 0.0327666666666661
diff_tws: -1.0773580073789655
diff_twd: -27.59904878053364

Table 38: Transition 2-6: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	100.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	100.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 2-6 ([157.5-180) - [0-22.5)): Range level average differences

diff_temp: -0.10762200000000632
diff_humidity: 0.7944999999999567
diff_precipitation: 0.0
diff_pressure: -0.22013824462885623
diff_gust: 0.6576672851562524
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.38173999999999353
diff_total_cloud_coverage: 0.0
diff_tws: -1.6115522409575722
diff_twd: -167.81112816891053

Transition 2-6 ([180-202.5) - [0-22.5)): Range level average differences

diff_temp: -0.08758600000000527
diff_humidity: 0.64740000000000188
diff_precipitation: 0.0
diff_pressure: -0.2802099609374409
diff_gust: 0.2622541015624993
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.3401899999999962

diff_total_cloud_coverage: 0.0
diff_tws: -5.976112240289069
diff_twd: -172.7477123520318

Transition 2-6: Overall level average differences
diff_temp: -0.0976040000000058
diff_humidity: 0.7209499999999878
diff_precipitation: 0.0
diff_pressure: -0.25017410278314856
diff_gust: 0.45996069335937584
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.3609649999999949
diff_total_cloud_coverage: 0.0
diff_tws: -3.7938322406233205
diff_twd: -21.92309071700015

Table 39: Transition 3-2: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	50.00% (1)	50.00% (1)	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 3-2 ([67.5-90) - [180-202.5)): Range level average differences
diff_temp: -0.03270600000001167
diff_humidity: 1.7642999999999347
diff_precipitation: 0.0
diff_pressure: -0.08751159667963293

diff_gust: 1.4248250976562549
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.3052999999999999
diff_total_cloud_coverage: 0.0
diff_tws: 4.5085663029397045
diff_twd: 112.40383911415233

Transition 3-2 ([67.5-90] - [202.5-225]): Range level average differences

diff_temp: -0.03270600000001167
diff_humidity: 1.7642999999999347
diff_precipitation: 0.0
diff_pressure: -0.08751159667963293
diff_gust: 1.4248250976562549
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.3052999999999999
diff_total_cloud_coverage: 0.0
diff_tws: 3.3278862873948376
diff_twd: 132.16488477424247

Transition 3-2: Overall level average differences

diff_temp: -0.03270600000001167
diff_humidity: 1.7642999999999347
diff_precipitation: 0.0
diff_pressure: -0.08751159667963293
diff_gust: 1.4248250976562549
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.3052999999999999
diff_total_cloud_coverage: 0.0
diff_tws: 3.918226295167271
diff_twd: -17.334262718593877

Table 40: Transition 3-3: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360)
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	54.84% (17)	38.71% (12)	6.45% (2)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	16.13% (5)	83.87% (26)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 3-3 ([45-67.5) - [45-67.5)): Range level average differences

diff_temp: 0.2175297058823562
 diff_humidity: -1.242441176470586
 diff_precipitation: 0.03530952941176503
 diff_pressure: -0.12285996380973409
 diff_gust: -0.48753176125919284
 diff_high_cloud_coverage: 6.589113529411764
 diff_low_cloud_coverage: -1.6765294117647134
 diff_medium_cloud_coverage: 1.18776470588235
 diff_temperature_at_ground: 0.02994764705882184
 diff_total_cloud_coverage: 3.320019411764696
 diff_tws: 0.35350810548181627
 diff_twd: 1.6199049823986191

Transition 3-3 ([45-67.5) - [67.5-90)): Range level average differences

diff_temp: 0.2192065833333432
 diff_humidity: -0.3015829264322966
 diff_precipitation: 0.007651416666666658
 diff_pressure: -0.24331064860026194
 diff_gust: -0.7106419937133799
 diff_high_cloud_coverage: 12.723535833333331
 diff_low_cloud_coverage: 0.25251666666666006
 diff_medium_cloud_coverage: 1.2343650000000033
 diff_temperature_at_ground: -0.000654083333354238

diff_total_cloud_coverage: 8.746335833333328
diff_tws: -0.2760914996600507
diff_twd: 14.901863969917429

Transition 3-3 ([45-67.5] - [90-112.5]): Range level average differences

diff_temp: -0.12991400000001363
diff_humidity: 0.3245500000000092
diff_precipitation: 0.000999999999994458
diff_pressure: -0.08786911010747644
diff_gust: -2.511444500732414
diff_high_cloud_coverage: 12.776399999999988
diff_low_cloud_coverage: -10.54569999999998
diff_medium_cloud_coverage: 8.075499999999991
diff_temperature_at_ground: -0.07002165771483781
diff_total_cloud_coverage: -2.966899999999883
diff_tws: -0.2522792219165837
diff_twd: 43.459266315747996

Transition 3-3 ([67.5-90] - [45-67.5]): Range level average differences

diff_temp: 0.2022892000000077
diff_humidity: -0.3657804882812329
diff_precipitation: 0.000475399999999998
diff_pressure: -0.25622209167477195
diff_gust: -0.3261938989257846
diff_high_cloud_coverage: -1.2499719999999996
diff_low_cloud_coverage: 0.7895399999999989
diff_medium_cloud_coverage: 9.070862
diff_temperature_at_ground: -0.1219899999999956
diff_total_cloud_coverage: 6.372027999999998
diff_tws: -1.1353854932800396
diff_twd: -7.7420321754039065

Transition 3-3 ([67.5-90] - [67.5-90]): Range level average differences

diff_temp: 0.09022608556189714
diff_humidity: -0.030427016977163282
diff_precipitation: 0.004969307692307656
diff_pressure: -0.22474299797645558
diff_gust: 0.14397163179837763
diff_high_cloud_coverage: -2.6629307692307713

diff_low_cloud_coverage: -1.7735230769230752
diff_medium_cloud_coverage: 2.0437811538461546
diff_temperature_at_ground: 0.017776923076924824
diff_total_cloud_coverage: -3.091403846153846
diff_tws: -0.49598585284228464
diff_twd: 2.0731983332563755

Transition 3-3 ([90-112.5] - [67.5-90]): Range level average differences

diff_temp: -0.15644699999999645
diff_humidity: 2.3001000000000147
diff_precipitation: 0.05089999999999945
diff_pressure: 0.14233337402345114
diff_gust: 0.08556953124998401
diff_high_cloud_coverage: -2.858799999999988
diff_low_cloud_coverage: 5.641299999999999
diff_medium_cloud_coverage: -13.250999999999934
diff_temperature_at_ground: -0.06871899999999442
diff_total_cloud_coverage: -3.3379999999999512
diff_tws: 2.227405423512974
diff_twd: -25.289837560554417

Transition 3-3: Overall level average differences

diff_temp: 0.14713544800967313
diff_humidity: -0.38748095238095076
diff_precipitation: 0.013913619047619102
diff_pressure: -0.1931139749193941
diff_gust: -0.3117582603817903
diff_high_cloud_coverage: 3.3635761904761896
diff_low_cloud_coverage: -1.3188063492063515
diff_medium_cloud_coverage: 2.165031746031747
diff_temperature_at_ground: 0.0022975981677829183
diff_total_cloud_coverage: 1.6445746031746005
diff_tws: -0.22465353751348446
diff_twd: 4.50749965477956

Table 41: Transition 3-5: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	50.00% (1)	50.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	20.00% (1)	80.00% (4)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	75.00% (3)	0%	25.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 3-5 ([45-67.5) - [90-112.5)): Range level average differences

diff_temp: 0.23516599999998178
diff_humidity: -2.1947999999999944
diff_precipitation: 0.0
diff_pressure: -0.7253408813477336
diff_gust: -1.0245033290862997
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: -0.04452000000000001
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: 0.07196999999999676
diff_total_cloud_coverage: -0.04452000000000001
diff_tws: 1.1100110706698283
diff_twd: 58.17480485228682

Transition 3-5 ([45-67.5) - [112.5-135)): Range level average differences

diff_temp: -0.66626800000000094
diff_humidity: 5.2559000000000004
diff_precipitation: 0.0
diff_pressure: -0.26329650878903976
diff_gust: 0.8299119140625031
diff_high_cloud_coverage: 24.603000000000016
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.3493099999999778

diff_total_cloud_coverage: 24.603000000000016
diff_tws: -7.950573643410852
diff_twd: 78.63922337412026

Transition 3-5 ([67.5-90) - [90-112.5)): Range level average differences

diff_temp: 0.04449200000000886
diff_humidity: 0.1926999999997367
diff_precipitation: 0.0
diff_pressure: -0.2622634887695767
diff_gust: 2.3910999572753875
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: -0.3794999999999995
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.07887999999999451
diff_total_cloud_coverage: -0.3794999999999995
diff_tws: -0.6475921477437435
diff_twd: 3.396086293784421

Transition 3-5 ([67.5-90) - [112.5-135)): Range level average differences

diff_temp: -0.2954665561523422
diff_humidity: 2.878825000000001
diff_precipitation: 0.000242500000000066
diff_pressure: -0.08752727508544922
diff_gust: 1.5731062170982375
diff_high_cloud_coverage: 27.397
diff_low_cloud_coverage: -1.1430249999999995
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.26566749999999395
diff_total_cloud_coverage: 27.012749999999997
diff_tws: -1.2580053524829997
diff_twd: 43.7218230412424

Transition 3-5 ([90-112.5) - [112.5-135)): Range level average differences

diff_temp: 0.12764730891699827
diff_humidity: -0.09103333333336157
diff_precipitation: 0.0
diff_pressure: -0.026771850597394103
diff_gust: 0.9989939523201761
diff_high_cloud_coverage: -0.8949666666666665

diff_low_cloud_coverage: -0.010443333333333334
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.061509999999999603
diff_total_cloud_coverage: -0.88836
diff_tws: 1.0518722907619782
diff_twd: 25.54730218675394

Transition 3-5 ([90-112.5] - [157.5-180]): Range level average differences

diff_temp: -0.12856607324901503
diff_humidity: 0.85689999999999818
diff_precipitation: 0.0
diff_pressure: 0.33725158687968815
diff_gust: -0.1675360106999939
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.30882999999999897
diff_total_cloud_coverage: 0.0
diff_tws: 0.015340286205649978
diff_twd: 59.82433973279123

Transition 3-5: Overall level average differences

diff_temp: -0.11946367010067344
diff_humidity: 1.3957181818181759
diff_precipitation: 8.8181818182058e-05
diff_pressure: -0.1221885403782401
diff_gust: 1.0289435688095523
diff_high_cloud_coverage: 11.9551
diff_low_cloud_coverage: -0.45704090909090894
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.17384090909090266
diff_total_cloud_coverage: 11.778627272727276
diff_tws: -0.8499289974477438
diff_twd: 39.31040741927041

Table 42: Transition 3-6: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	100.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00% (1)
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 3-6 ([45-67.5) - [0-22.5)): Range level average differences

diff_temp: 0.1892189999999978

diff_humidity: -0.8065999999999889

diff_precipitation: 0.0523000000000001

diff_pressure: 0.05430114746093295

diff_gust: -0.5383403991699183

diff_high_cloud_coverage: -5.031000000000056

diff_low_cloud_coverage: -4.076000000000006

diff_medium_cloud_coverage: 9.385000000000002

diff_temperature_at_ground: 0.17445000000001087

diff_total_cloud_coverage: -5.031000000000056

diff_tws: -0.5524548060630193

diff_twd: -27.962347867794108

Transition 3-6 ([67.5-90) - [337.5-360]): Range level average differences

diff_temp: -0.14773399999998915

diff_humidity: 1.8103999999999445

diff_precipitation: 0.0

diff_pressure: -0.009351501464834655

diff_gust: -0.6383496093750018

diff_high_cloud_coverage: 0.0

diff_low_cloud_coverage: 0.0

diff_medium_cloud_coverage: 0.0

diff_temperature_at_ground: -0.38319999999997734

diff_total_cloud_coverage: 0.0
diff_tws: -0.4451097754820008
diff_twd: -87.53323231414532

Transition 3-6: Overall level average differences
diff_temp: 0.020742500000004327
diff_humidity: 0.5018999999999778
diff_precipitation: 0.02615000000000007
diff_pressure: 0.02247482299804915
diff_gust: -0.5883450042724601
diff_high_cloud_coverage: -2.515500000000028
diff_low_cloud_coverage: -2.038000000000003
diff_medium_cloud_coverage: 4.692500000000001
diff_temperature_at_ground: -0.10437499999998323
diff_total_cloud_coverage: -2.515500000000028
diff_tws: -0.4987822907725101
diff_twd: -58.62239703472837

Table 43: Transition 4-1: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	88.89% (8)	11.11% (1)	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 4-1 ([202.5-225) - [202.5-225)): Range level average differences
diff_temp: 0.04661804199218622
diff_humidity: -0.7311999999999443
diff_precipitation: 0.0
diff_pressure: -0.34119689941417164

diff_gust: 0.1550807495117148
diff_high_cloud_coverage: -5.5390000000000003
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.13660000000000494
diff_total_cloud_coverage: -5.5390000000000003
diff_tws: 1.1964008805348179
diff_twd: -0.6788765541932662

Transition 4-1 ([225-247.5] - [202.5-225]): Range level average differences

diff_temp: 0.04902325195312285
diff_humidity: -0.47222500000000159
diff_precipitation: 0.0
diff_pressure: -0.19285442352294524
diff_gust: 1.1896920914173168
diff_high_cloud_coverage: 2.0500124999999993
diff_low_cloud_coverage: -0.0012156250000000012
diff_medium_cloud_coverage: 2.4567500000000004
diff_temperature_at_ground: 0.005408750000000406
diff_total_cloud_coverage: 3.1347325000000006
diff_tws: -1.2071598144215996
diff_twd: -13.852445586911355

Transition 4-1 ([225-247.5] - [225-247.5]): Range level average differences

diff_temp: 0.22159800000001795
diff_humidity: -1.1232999999999436
diff_precipitation: 0.0
diff_pressure: -0.3215808105468341
diff_gust: -0.9510807495117355
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: 0.1932599999999951
diff_total_cloud_coverage: 0.0
diff_tws: -2.7478987575854696
diff_twd: -2.918767312451081

Transition 4-1: Overall level average differences

diff_temp: 0.06604020576171869

diff_humidity: -0.5632300000000015
 diff_precipitation: 0.0
 diff_pressure: -0.22056130981445676
 diff_gust: 0.8721536731338514
 diff_high_cloud_coverage: 1.0861099999999999
 diff_low_cloud_coverage: -0.0009725000000000009
 diff_medium_cloud_coverage: 1.9654000000000003
 diff_temperature_at_ground: 0.009992999999999341
 diff_total_cloud_coverage: 1.9538859999999996
 diff_tws: -1.120877639242345
 diff_twd: -10.374197682140375

Table 44: Transition 4-2: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	25.00% (1)	25.00% (1)	50.00% (2)	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 4-2 ([225-247.5) - [157.5-180)): Range level average differences

diff_temp: 0.22909356054686114
 diff_humidity: -1.8785999999999774
 diff_precipitation: 0.0
 diff_pressure: -0.40520324707028976
 diff_gust: -0.1256311645507857
 diff_high_cloud_coverage: 0.0
 diff_low_cloud_coverage: 0.0
 diff_medium_cloud_coverage: 0.0
 diff_temperature_at_ground: 0.11917000000000044
 diff_total_cloud_coverage: 0.0
 diff_tws: 4.395908941555835

diff_twd: -61.97167817539943

Transition 4-2 ([225-247.5] - [180-202.5]): Range level average differences

diff_temp: 0.08606750488281278
diff_humidity: -1.9194000000000102
diff_precipitation: 0.0
diff_pressure: -0.44665588378904886
diff_gust: 1.5289927978515543
diff_high_cloud_coverage: -14.746999999999986
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.1047100000000043
diff_total_cloud_coverage: -14.746999999999986
diff_tws: 1.7157592068700243
diff_twd: -39.217760842523944

Transition 4-2 ([225-247.5] - [202.5-225]): Range level average differences

diff_temp: -0.08069466259765612
diff_humidity: 1.3106999999999545
diff_precipitation: 2.895000000000004e-07
diff_pressure: -0.10428970336914745
diff_gust: 2.0248369171142633
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.21405000000000007
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.26020000000000465
diff_total_cloud_coverage: 0.21405000000000007
diff_tws: 0.06773212738754608
diff_twd: -23.030576735712316

Transition 4-2 ([247.5-270] - [135-157.5]): Range level average differences

diff_temp: 0.07327392578125114
diff_humidity: -0.4864000000000033
diff_precipitation: 0.0
diff_pressure: -0.4046765136719159
diff_gust: 1.0792319946289162
diff_high_cloud_coverage: 6.651999999999975
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0

diff_temperature_at_ground: 0.01861000000000601
diff_total_cloud_coverage: 6.651999999999975
diff_tws: -0.12530756780178484
diff_twd: -97.77447160430057

Transition 4-2: Overall level average differences
diff_temp: 0.045409133203122565
diff_humidity: -0.3326000000000164
diff_precipitation: 1.158000000000002e-07
diff_pressure: -0.29302301025390987
diff_gust: 1.3064534924316422
diff_high_cloud_coverage: -1.618999999999976
diff_low_cloud_coverage: 0.0856200000000003
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.0974660000000143
diff_total_cloud_coverage: -1.533379999999975
diff_tws: 1.2243649670798333
diff_twd: -23.130819855820313

Table 45: Transition 4-3: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	100.00% (2)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 4-3 ([225-247.5) - [67.5-90)): Range level average differences
diff_temp: -0.07080499999999645
diff_humidity: 1.4524000000000257
diff_precipitation: 0.0

diff_pressure: -0.18904968261722388
diff_gust: 0.21717796020508118
diff_high_cloud_coverage: -1.7975000000000005
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.32786000000000826
diff_total_cloud_coverage: -1.7975000000000005
diff_tws: 1.8808298346342802
diff_twd: -156.11816395011567

Transition 4-3 ([247.5-270) - [45-67.5]): Range level average differences

diff_temp: -0.19568250000000002
diff_humidity: 1.0161500000000032
diff_precipitation: 0.000849999999997954
diff_pressure: -0.06921691894530113
diff_gust: -1.5721283935546744
diff_high_cloud_coverage: 13.94239999999989
diff_low_cloud_coverage: 0.3256599999999995
diff_medium_cloud_coverage: 8.19880999999991
diff_temperature_at_ground: -0.20215165771484145
diff_total_cloud_coverage: 9.05555999999993
diff_tws: -3.665493163878476
diff_twd: 165.05977228039114

Transition 4-3: Overall level average differences

diff_temp: -0.15405666666666562
diff_humidity: 1.1615666666666773
diff_precipitation: 0.000566666666665302
diff_pressure: -0.10916117350260872
diff_gust: -0.9756929423014226
diff_high_cloud_coverage: 8.69576666666659
diff_low_cloud_coverage: 0.2171066666666664
diff_medium_cloud_coverage: 5.46587333333327
diff_temperature_at_ground: -0.24405443847656372
diff_total_cloud_coverage: 5.43787333333329
diff_tws: -1.8167188310408904
diff_twd: 67.84603026448218

Table 46: Transition 4-4: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50.00% (4)	50.00% (4)	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	40.00% (2)	60.00% (3)	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 4-4 ([202.5-225) - [247.5-270)): Range level average differences

diff_temp: 0.2142300000000077
diff_humidity: -0.6695000000000277
diff_precipitation: 0.0
diff_pressure: -0.29476989746092386
diff_gust: 2.3066152343750055
diff_high_cloud_coverage: -0.3643000000000006
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: 0.19429999999999836
diff_total_cloud_coverage: -0.3643000000000006
diff_tws: 5.322081691647611
diff_twd: 26.901232601475215

Transition 4-4 ([225-247.5) - [225-247.5)): Range level average differences

diff_temp: 0.07130326293945188
diff_humidity: -0.15697500000000986
diff_precipitation: 0.0
diff_pressure: -0.4205087280273574
diff_gust: 2.318705255126953
diff_high_cloud_coverage: 1.8446000000000007
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.1494
diff_temperature_at_ground: -0.08277249999999814

diff_total_cloud_coverage: 1.8446000000000007
diff_tws: -0.42403545154311756
diff_twd: -1.7902690162744008

Transition 4-4 ([225-247.5] - [247.5-270]): Range level average differences

diff_temp: 0.03629662622069674
diff_humidity: -1.16915000000000055
diff_precipitation: 0.0
diff_pressure: -0.19498352050780454
diff_gust: 0.847192382812497
diff_high_cloud_coverage: -3.18324999999999966
diff_low_cloud_coverage: -1.04422999999999998
diff_medium_cloud_coverage: -0.78627500000000001
diff_temperature_at_ground: -0.20799000000000056
diff_total_cloud_coverage: -3.4806299999999996
diff_tws: 0.3590961144771289
diff_twd: 24.700021994895415

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Transition 4-4 ([247.5-270] - [225-247.5]): Range level average differences

diff_temp: -0.04109639453125169
diff_humidity: 0.8520499999999558
diff_precipitation: 2.8950000000000004e-07
diff_pressure: -0.21424453735352245
diff_gust: 2.192446487426756
diff_high_cloud_coverage: 0.41350000000000003
diff_low_cloud_coverage: 0.21405000000000007
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.09202500000000668
diff_total_cloud_coverage: 0.62755
diff_tws: 2.41683360498476
diff_twd: -3.942684977018132

Transition 4-4 ([247.5-270] - [247.5-270]): Range level average differences

diff_temp: -0.058727995117184406
diff_humidity: -0.41896666666664356
diff_precipitation: 0.0
diff_pressure: -0.0026390584309865517
diff_gust: -0.5873511779785217
diff_high_cloud_coverage: -3.872

diff_low_cloud_coverage: -1.7199733333333338
diff_medium_cloud_coverage: 0.1715266666666667
diff_temperature_at_ground: -0.22679333333333082
diff_total_cloud_coverage: -5.525606666666667
diff_tws: -3.0780038127870117
diff_twd: -8.394160414630022

Transition 4-4: Overall level average differences
diff_temp: 0.027589484444753256
diff_humidity: -0.39477142857143627
diff_precipitation: 4.1357142857142864e-08
diff_pressure: -0.22808179582868401
diff_gust: 1.2566460876464822
diff_high_cloud_coverage: -1.1791357142857133
diff_low_cloud_coverage: -0.6363385714285714
diff_medium_cloud_coverage: -0.1452085714285714
diff_temperature_at_ground: -0.13094142857142874
diff_total_cloud_coverage: -1.587867142857142
diff_tws: 0.04728429392801007
diff_twd: -0.2062167232819801

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Table 47: Transition 4-5: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	100.00% (2)	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 4-5 ([225-247.5) - [135-157.5)): Range level average differences
diff_temp: -0.12038303808593476

diff_humidity: 1.784050000000036
diff_precipitation: 7.2105e-06
diff_pressure: 0.051387786865234375
diff_gust: 1.2140085449218754
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: -0.21405000000000007
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.2528049999999986
diff_total_cloud_coverage: -0.21405000000000007
diff_tws: -1.48129577753123
diff_twd: -82.90560772739394

Transition 4-5 ([247.5-270) - [157.5-180)): Range level average differences

diff_temp: -0.003820000000010448
diff_humidity: -0.6574000000000524
diff_precipitation: 0.0
diff_pressure: 0.12133636474607101
diff_gust: 0.07740722656251009
diff_high_cloud_coverage: -14.085999999999999
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.24165991699218026
diff_total_cloud_coverage: -14.085999999999999
diff_tws: -1.3955810332461382
diff_twd: -100.13436223624274

Transition 4-5: Overall level average differences

diff_temp: -0.08152869205729019
diff_humidity: 0.9702333333333399
diff_precipitation: 4.807e-06
diff_pressure: 0.07470397949217993
diff_gust: 0.8351414388020869
diff_high_cloud_coverage: -4.695333333333333
diff_low_cloud_coverage: -0.14270000000000005
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.24908997233072583
diff_total_cloud_coverage: -4.838033333333333
diff_tws: -1.452724196102866
diff_twd: -71.5698561115154

Table 48: Transition 4-6: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	33.33% (1)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	66.67% (2)
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 4-6 ([247.5-270) - [0-22.5)): Range level average differences

diff_temp: -0.14773399999998915

diff_humidity: 1.8103999999999445

diff_precipitation: 0.0

diff_pressure: -0.009351501464834655

diff_gust: -0.6383496093750018

diff_high_cloud_coverage: 0.0

diff_low_cloud_coverage: 0.0

diff_medium_cloud_coverage: 0.0

diff_temperature_at_ground: -0.38319999999997734

diff_total_cloud_coverage: 0.0

diff_tws: 1.342901416604692

diff_twd: 125.4736991705646

Transition 4-6 ([247.5-270) - [337.5-360]): Range level average differences

diff_temp: -0.12956989501952876

diff_humidity: 0.6359500000000438

diff_precipitation: 0.0

diff_pressure: 0.12261169433594432

diff_gust: -0.9511116333007728

diff_high_cloud_coverage: 1.1660000000000006

diff_low_cloud_coverage: -0.09704

diff_medium_cloud_coverage: 0.12330999999999995

diff_temperature_at_ground: -0.25831512695313386

diff_total_cloud_coverage: 1.0540600000000002
diff_tws: -1.1542637406709706
diff_twd: 89.99062502544183

Transition 4-6: Overall level average differences
diff_temp: -0.1356245966796822
diff_humidity: 1.0274333333333344
diff_precipitation: 0.0
diff_pressure: 0.07862396240235132
diff_gust: -0.8468576253255158
diff_high_cloud_coverage: 0.7773333333333338
diff_low_cloud_coverage: -0.0646933333333334
diff_medium_cloud_coverage: 0.08220666666666664
diff_temperature_at_ground: -0.29994341796874835
diff_total_cloud_coverage: 0.7027066666666668
diff_tws: -0.32187535491241626
diff_twd: 96.25071211533542

Table 49: Transition 5-2: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	75.00% (3)	25.00% (1)	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	100.00% (2)	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 5-2 ([90-112.5) - [157.5-180)): Range level average differences
diff_temp: -0.26905001660156813
diff_humidity: 2.6492999999999114
diff_precipitation: 0.0286999999999992
diff_pressure: -0.14175476074228754

diff_gust: 2.8893623962402355
diff_high_cloud_coverage: 10.713699999999998
diff_low_cloud_coverage: -0.17380000000000062
diff_medium_cloud_coverage: -0.02026000000000004
diff_temperature_at_ground: -0.0219999999999807
diff_total_cloud_coverage: 10.240700000000002
diff_tws: 4.7233762329532105
diff_twd: 69.06744078126337

Transition 5-2 ([112.5-135] - [157.5-180]): Range level average differences

diff_temp: 0.015282016601563697
diff_humidity: 0.2662000000000262
diff_precipitation: 0.0129000000000005
diff_pressure: -0.10355529785147155
diff_gust: 2.6671424499511716
diff_high_cloud_coverage: 26.89600000000008
diff_low_cloud_coverage: -0.1512999999999955
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.0619699999999875
diff_total_cloud_coverage: 26.878
diff_tws: 4.904513170631421
diff_twd: 56.76307910348535

Transition 5-2 ([135-157.5] - [180-202.5]): Range level average differences

diff_temp: 0.010794782226567415
diff_humidity: -0.10546666666664824
diff_precipitation: 0.0
diff_pressure: -0.24849446614583334
diff_gust: 1.1180091166178414
diff_high_cloud_coverage: -5.282833333333335
diff_low_cloud_coverage: -0.4636803333333333
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.2390433333332892
diff_total_cloud_coverage: -5.288213666666667
diff_tws: 0.304841148923999
diff_twd: 52.37477174935329

Transition 5-2 ([135-157.5] - [202.5-225]): Range level average differences

diff_temp: 0.07131225585937528

diff_humidity: -1.557399999999728
diff_precipitation: 0.0
diff_pressure: -0.22034484863274884
diff_gust: 1.9289409179687507
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.3198799999999906
diff_total_cloud_coverage: 0.0
diff_tws: -2.1764221622740227
diff_twd: 60.8773023977252

Transition 5-2 ([157.5-180] - [157.5-180]): Range level average differences

diff_temp: 0.04841491699218814
diff_humidity: 0.08185000000000997
diff_precipitation: 0.03844999999999921
diff_pressure: 0.226777648925804
diff_gust: -0.6024603881835873
diff_high_cloud_coverage: -4.084350000000001
diff_low_cloud_coverage: -0.5344499999999995
diff_medium_cloud_coverage: -0.02934500000000024
diff_temperature_at_ground: 0.09337500000000176
diff_total_cloud_coverage: 6.556000000000001
diff_tws: -1.2157717559630803
diff_twd: 7.681546594060833

Transition 5-2: Overall level average differences

diff_temp: -0.006655195434568828
diff_humidity: 0.150675000000005
diff_precipitation: 0.014812499999999798
diff_pressure: -0.09469787597655
diff_gust: 1.2043190422058134
diff_high_cloud_coverage: 1.6990625000000004
diff_low_cloud_coverage: -0.3481301249999999
diff_medium_cloud_coverage: -0.009868750000000006
diff_temperature_at_ground: -0.11677874999999416
diff_total_cloud_coverage: 4.295757375000001
diff_tws: 0.7418058970195557
diff_twd: 41.68145190536944

Table 50: Transition 5-3: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	33.33% (1)	33.33% (1)	33.33% (1)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 5-3 ([90-112.5) - [45-67.5)): Range level average differences

diff_temp: 0.3903810000000014

diff_humidity: -2.4749000000000005

diff_precipitation: 0.0

diff_pressure: -0.2066607666015443

diff_gust: 0.4052648525238025

diff_high_cloud_coverage: -2.6848999999999994

diff_low_cloud_coverage: -0.031330000000000004

diff_medium_cloud_coverage: 0.0

diff_temperature_at_ground: 0.202299999999999038

diff_total_cloud_coverage: -2.66508

diff_tws: 0.5201788987128406

diff_twd: -57.63806541464529

Transition 5-3 ([90-112.5) - [67.5-90)): Range level average differences

diff_temp: 0.039517000000000024

diff_humidity: 0.803900000000000556

diff_precipitation: 0.0

diff_pressure: -0.4288275146484466

diff_gust: 2.6435975585937506

diff_high_cloud_coverage: 0.0

diff_low_cloud_coverage: 0.0

diff_medium_cloud_coverage: 0.0

diff_temperature_at_ground: -0.22227999999999978

diff_total_cloud_coverage: 0.0
diff_tws: -0.5154321649850259
diff_twd: -8.889446805162393

Transition 5-3 ([90-112.5] - [90-112.5]): Range level average differences

diff_temp: -0.06974975584796894
diff_humidity: -0.06280000000000996
diff_precipitation: 0.0
diff_pressure: 0.16853698737031664
diff_gust: 0.4128559569999801
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.2733199999999947
diff_total_cloud_coverage: 0.0
diff_tws: -0.16959900588132015
diff_twd: -1.4633828592673837

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Transition 5-3 ([112.5-135] - [90-112.5]): Range level average differences

diff_temp: 0.23516599999998178
diff_humidity: -2.194799999999944
diff_precipitation: 0.0
diff_pressure: -0.7253408813477336
diff_gust: -1.0245033290862997
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: -0.04452000000000001
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: 0.07196999999999676
diff_total_cloud_coverage: -0.04452000000000001
diff_tws: 1.4953956713308745
diff_twd: -15.367137881437472

Transition 5-3 ([135-157.5] - [67.5-90]): Range level average differences

diff_temp: 0.039517000000000024
diff_humidity: 0.80390000000000556
diff_precipitation: 0.0
diff_pressure: -0.4288275146484466
diff_gust: 2.6435975585937506
diff_high_cloud_coverage: 0.0

diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.2222799999999978
diff_total_cloud_coverage: 0.0
diff_tws: -0.34872972066105906
diff_twd: -76.6338985840784

Transition 5-3: Overall level average differences
diff_temp: 0.12696624883040286
diff_humidity: -0.62493999999999696
diff_precipitation: 0.0
diff_pressure: -0.3242239379751709
diff_gust: 1.0161625195249968
diff_high_cloud_coverage: -0.5369799999999999
diff_low_cloud_coverage: -0.015170000000000003
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.08872200000000063
diff_total_cloud_coverage: -0.54192
diff_tws: 0.19636273570326196
diff_twd: -21.574793190005302

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Table 51: Transition 5-4: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 5-4 ([135-157.5) - [225-247.5)): Range level average differences
diff_temp: -0.0094609999999998165

diff_humidity: 0.817300000000003
diff_precipitation: 0.0
diff_pressure: -0.30962768554684317
diff_gust: 0.8834240295410147
diff_high_cloud_coverage: -15.8485
diff_low_cloud_coverage: -1.3749
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.1708399999998767
diff_total_cloud_coverage: -15.8485
diff_tws: -1.6519051527587785
diff_twd: 90.60360886188727

Transition 5-4: Overall level average differences

diff_temp: -0.00946099999998165
diff_humidity: 0.817300000000003
diff_precipitation: 0.0
diff_pressure: -0.30962768554684317
diff_gust: 0.8834240295410147
diff_high_cloud_coverage: -15.8485
diff_low_cloud_coverage: -1.3749
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.1708399999998767
diff_total_cloud_coverage: -15.8485
diff_tws: -1.6519051527587785
diff_twd: 61.32582395261609

Table 52: Transition 5-5: Changes of TWD

TWD Range	[0-22.5]	[22.5-45]	[45-67.5]	[67.5-90]	[90-112.5]	[112.5-135]	[135-157.5]	[157.5-180]	[180-202.5]	[202.5-225]	[225-247.5]	[247.5-270]	[270-292.5]	[292.5-315]	[315-337.5]	[337.5-360]
[0-22.5]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5]	0%	0%	0%	0%	33.33% (1)	66.67% (2)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135]	0%	0%	0%	0%	10.00% (1)	60.00% (6)	20.00% (2)	10.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5]	0%	0%	0%	0%	0%	0%	100.00% (5)	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180]	0%	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 5-5 ([90-112.5] - [90-112.5]): Range level average differences

diff_temp: -0.106351000000000008
diff_humidity: 1.09630000000000704
diff_precipitation: 0.13500000000000004
diff_pressure: -0.12181213378903522
diff_gust: 2.3875430698394773
diff_high_cloud_coverage: 0.9433
diff_low_cloud_coverage: -0.7330999999999999
diff_medium_cloud_coverage: 0.020260000000000004
diff_temperature_at_ground: 0.24237999999999005
diff_total_cloud_coverage: -0.5472999999999999
diff_tws: -1.249395424506834
diff_twd: 2.5097942991213387

Transition 5-5 ([90-112.5] - [112.5-135]): Range level average differences

diff_temp: -0.07396150830077985
diff_humidity: 1.9970999999999925
diff_precipitation: 0.01434999999999996
diff_pressure: -0.17633056640630684
diff_gust: 2.8243077056884776
diff_high_cloud_coverage: 5.356849999999999
diff_low_cloud_coverage: -0.08690000000000031
diff_medium_cloud_coverage: -0.010130000000000002
diff_temperature_at_ground: -0.04999999999998472

diff_total_cloud_coverage: 5.120350000000001
diff_tws: -0.5006720253386299
diff_twd: 9.504328299513205

Transition 5-5 ([112.5-135] - [90-112.5]): Range level average differences

diff_temp: -0.10635100000000008
diff_humidity: 1.0963000000000704
diff_precipitation: 0.1350000000000004
diff_pressure: -0.12181213378903522
diff_gust: 2.3875430698394773
diff_high_cloud_coverage: 0.9433
diff_low_cloud_coverage: -0.7330999999999999
diff_medium_cloud_coverage: 0.02026000000000004
diff_temperature_at_ground: 0.24237999999999005
diff_total_cloud_coverage: -0.5472999999999999
diff_tws: -1.6276122649297617
diff_twd: -4.645131866925439

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Transition 5-5 ([112.5-135] - [112.5-135]): Range level average differences

diff_temp: -0.2823424999999986
diff_humidity: 2.0414666666666768
diff_precipitation: 0.0
diff_pressure: 0.08241068522338917
diff_gust: 1.2748611165354164
diff_high_cloud_coverage: -18.844666666666672
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.2661643774403129
diff_total_cloud_coverage: -18.844666666666672
diff_tws: -0.7729189966080083
diff_twd: -0.9738774359733474

Transition 5-5 ([112.5-135] - [135-157.5]): Range level average differences

diff_temp: -0.09318600000001354
diff_humidity: 1.0789000000000044
diff_precipitation: 0.00050000000000004
diff_pressure: -0.17413269042970114
diff_gust: 1.1491015930175772
diff_high_cloud_coverage: -9.586999999999996

diff_low_cloud_coverage: -1.5635000000000001
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.11428000000000438
diff_total_cloud_coverage: -9.586999999999996
diff_tws: -0.32078174347743343
diff_twd: 18.80193525235859

Transition 5-5 ([112.5-135] - [157.5-180]): Range level average differences

diff_temp: 0.052121999999997115
diff_humidity: 2.6869000000000051
diff_precipitation: 0.0
diff_pressure: -0.1490466308592886
diff_gust: 2.8252962890624946
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.23078000000000287
diff_total_cloud_coverage: 0.0
diff_tws: -2.806712935546732
diff_twd: 33.866483705666326

Transition 5-5 ([135-157.5] - [135-157.5]): Range level average differences

diff_temp: -0.10928053066405852
diff_humidity: 0.6770599999999986
diff_precipitation: 0.0
diff_pressure: -0.005767822265647737
diff_gust: 0.3918663476562504
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: -0.006574000000000001
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.3090495664062495
diff_total_cloud_coverage: -0.006574000000000001
diff_tws: 1.5238034020036513
diff_twd: 1.1850576716069383

Transition 5-5 ([157.5-180] - [112.5-135]): Range level average differences

diff_temp: -0.0734989999999982
diff_humidity: 0.2814999999999941
diff_precipitation: 0.0

diff_pressure: 0.7902178955200725
 diff_gust: -0.7775288085999996
 diff_high_cloud_coverage: 0.0
 diff_low_cloud_coverage: 0.0
 diff_medium_cloud_coverage: 0.0
 diff_temperature_at_ground: -0.16664514159497656
 diff_total_cloud_coverage: 0.0
 diff_tws: 3.5189466120835577
 diff_twd: -26.761856760046072

Transition 5-5: Overall level average differences
 diff_temp: -0.1478332457853617
 diff_humidity: 1.4182684210526333
 diff_precipitation: 0.015773684210526318
 diff_pressure: 0.008539235969620725
 diff_gust: 1.2830616134235424
 diff_high_cloud_coverage: -6.29693157894737
 diff_low_cloud_coverage: -0.2526247368421053
 diff_medium_cloud_coverage: 0.0010663157894736843
 diff_temperature_at_ground: -0.17807680201411066
 diff_total_cloud_coverage: -6.480461578947369
 diff_tws: -0.04348308000851003
 diff_twd: 1.4383757316818448

Table 53: Transition 6-2: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 6-2 ([0-22.5] - [180-202.5]): Range level average differences

diff_temp: -0.0738489999998851
diff_humidity: 0.891200000000404
diff_precipitation: 0.0
diff_pressure: 0.17830505371091476
diff_gust: 0.5118189453124931
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.26094915527344753
diff_total_cloud_coverage: 0.0
diff_tws: -1.4012603680018563
diff_twd: 173.19471393959856

Transition 6-2: Overall level average differences

diff_temp: -0.0738489999998851
diff_humidity: 0.891200000000404
diff_precipitation: 0.0
diff_pressure: 0.17830505371091476
diff_gust: 0.5118189453124931
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 0.0
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.26094915527344753
diff_total_cloud_coverage: 0.0
diff_tws: -1.4012603680018563
diff_twd: -6.8052860604014285

Table 54: Transition 6-3: Changes of TWD

TWD Range	[0-22.5]	[22.5-45]	[45-67.5]	[67.5-90]	[90-112.5]	[112.5-135]	[135-157.5]	[157.5-180]	[180-202.5]	[202.5-225]	[225-247.5]	[247.5-270]	[270-292.5]	[292.5-315]	[315-337.5]	[337.5-360]
[0-22.5]	0%	0%	100.00% (2)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45]	0%	0%	80.00% (4)	0%	20.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	100.00% (2)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 6-3 ([0-22.5] - [45-67.5]): Range level average differences

diff_temp: -0.0083333499999999106

diff_humidity: 0.5900500000000051

diff_precipitation: 9.99999999976694e-05

diff_pressure: 0.05677734375001364

diff_gust: -0.023295733642579197

diff_high_cloud_coverage: 0.0

diff_low_cloud_coverage: 2.950049999999998

diff_medium_cloud_coverage: 16.060499999999994

diff_temperature_at_ground: -0.28858500000000653

diff_total_cloud_coverage: 16.263549999999995

diff_tws: -2.157713796824647

diff_twd: 33.967078269857794

Transition 6-3 ([22.5-45] - [45-67.5]): Range level average differences

diff_temp: 0.32952325000000293

diff_humidity: -0.7941750000000134

diff_precipitation: 0.0001575000000011588

diff_pressure: -0.23173084259033772

diff_gust: -1.820726953124999

diff_high_cloud_coverage: -0.7913000000000002

diff_low_cloud_coverage: -7.271550000000005

diff_medium_cloud_coverage: -2.8757499999999987

diff_temperature_at_ground: 0.1634025000000019

diff_total_cloud_coverage: -6.967500000000005
diff_tws: 0.14139365981716268
diff_twd: 13.014697671004722

Transition 6-3 ([22.5-45] - [90-112.5]): Range level average differences

diff_temp: 0.3244280000000117
diff_humidity: -0.7656000000000347
diff_precipitation: 0.0
diff_pressure: -0.0773107910156341
diff_gust: 1.5852664123535138
diff_high_cloud_coverage: -22.268099999999997
diff_low_cloud_coverage: 0.05448800000000001
diff_medium_cloud_coverage: -3.2920000000000003
diff_temperature_at_ground: 0.3712799999999987
diff_total_cloud_coverage: -22.374399999999994
diff_tws: -2.3996970383034455
diff_twd: 48.14381978133724

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Transition 6-3 ([337.5-360] - [45-67.5]): Range level average differences

diff_temp: 0.03074799999999378
diff_humidity: 0.762599999999991
diff_precipitation: 0.0136999999999934
diff_pressure: 0.024954376220762242
diff_gust: -1.069919348144535
diff_high_cloud_coverage: 19.43850000000002
diff_low_cloud_coverage: -2.697949999999998
diff_medium_cloud_coverage: 2.281999999999999
diff_temperature_at_ground: -0.18315500000000995
diff_total_cloud_coverage: 19.177050000000023
diff_tws: -1.7292390937369602
diff_twd: 55.022910470434

Transition 6-3: Overall level average differences

diff_temp: 0.1874833333333475
diff_humidity: -0.1374444444445333
diff_precipitation: 0.003136666666666518
diff_pressure: -0.09341896904838147
diff_gust: -0.8760079515245234
diff_high_cloud_coverage: 1.493744444444449

diff_low_cloud_coverage: -3.169723555555558
diff_medium_cloud_coverage: 2.4322222222222214
diff_temperature_at_ground: 0.009045555555552594
diff_total_cloud_coverage: 2.292977777777778
diff_tws: -1.0675586866842233
diff_twd: 27.7357721533623

Table 55: Transition 6-5: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360]
[0-22.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[22.5-45)	0%	0%	0%	0%	0%	0%	100.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Transition 6-5 ([22.5-45) - [135-157.5)): Range level average differences

diff_temp: 0.04449200000000886
diff_humidity: 0.1926999999997367
diff_precipitation: 0.0
diff_pressure: -0.2622634887695767
diff_gust: 2.3910999572753875
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: -0.3794999999999995
diff_medium_cloud_coverage: 0.0
diff_temperature_at_ground: -0.07887999999999451
diff_total_cloud_coverage: -0.3794999999999995
diff_tws: -0.3637179301962066
diff_twd: 103.91458014304955

Transition 6-5: Overall level average differences

diff_temp: 0.04449200000000886

diff_humidity: 0.1926999999997367
 diff_precipitation: 0.0
 diff_pressure: -0.2622634887695767
 diff_gust: 2.3910999572753875
 diff_high_cloud_coverage: 0.0
 diff_low_cloud_coverage: -0.3794999999999995
 diff_medium_cloud_coverage: 0.0
 diff_temperature_at_ground: -0.07887999999999451
 diff_total_cloud_coverage: -0.3794999999999995
 diff_tws: -0.3637179301962066
 diff_twd: 49.461413864913574

Table 56: Transition 6-6: Changes of TWD

TWD Range	[0-22.5)	[22.5-45)	[45-67.5)	[67.5-90)	[90-112.5)	[112.5-135)	[135-157.5)	[157.5-180)	[180-202.5)	[202.5-225)	[225-247.5)	[247.5-270)	[270-292.5)	[292.5-315)	[315-337.5)	[337.5-360)
[0-22.5)	44.44% (4)	44.44% (4)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	11.11% (1)
[22.5-45)	40.00% (2)	60.00% (3)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[45-67.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[67.5-90)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[90-112.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[112.5-135)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[135-157.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[157.5-180)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[180-202.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[202.5-225)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[225-247.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[247.5-270)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[270-292.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[292.5-315)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[315-337.5)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
[337.5-360)	0%	50.00% (1)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50.00% (1)

Transition 6-6 ([0-22.5) - [0-22.5)): Range level average differences

diff_temp: 0.16339099999998918
 diff_humidity: -1.0618249999999999
 diff_precipitation: 0.034999999999999476
 diff_pressure: -0.1728264617919706
 diff_gust: -0.7598791326522863
 diff_high_cloud_coverage: 1.741000000000012
 diff_low_cloud_coverage: -1.9651000000000236
 diff_medium_cloud_coverage: 10.8325
 diff_temperature_at_ground: -0.05244000000000337
 diff_total_cloud_coverage: 12.662399999999986
 diff_tws: 0.09985116816875195

diff_twd: 0.7786890540221632

Transition 6-6 ([0-22.5] - [22.5-45]): Range level average differences

diff_temp: 0.16166275000000585
diff_humidity: -0.878249999999622
diff_precipitation: 0.0323750000000104
diff_pressure: -0.212594223022478
diff_gust: -2.4080817037582367
diff_high_cloud_coverage: -0.2587500000000027
diff_low_cloud_coverage: -2.118274999999982
diff_medium_cloud_coverage: -31.742000000000008
diff_temperature_at_ground: 0.0758899999999935
diff_total_cloud_coverage: -1.755499999999836
diff_tws: -0.44368415422621776
diff_twd: 18.63794494963992

Transition 6-6 ([0-22.5] - [337.5-360]): Range level average differences

diff_temp: 0.0922589999999854
diff_humidity: -0.1231000000002219
diff_precipitation: 0.1046000000000003
diff_pressure: -0.21965667724612103
diff_gust: -0.4318726562499915
diff_high_cloud_coverage: 5.99299999999981
diff_low_cloud_coverage: -13.83499999999987
diff_medium_cloud_coverage: -2.070599999999993
diff_temperature_at_ground: 0.2254600000001243
diff_total_cloud_coverage: -6.04400000000011
diff_tws: 0.5453847628837645
diff_twd: -18.07245703849202

Transition 6-6 ([22.5-45] - [0-22.5]): Range level average differences

diff_temp: 0.1625990000000194
diff_humidity: -0.9519500000000249
diff_precipitation: 0.00759999999999163
diff_pressure: -0.19905593872073268
diff_gust: -0.1090166748046868
diff_high_cloud_coverage: 0.0
diff_low_cloud_coverage: 3.71579999999964
diff_medium_cloud_coverage: 12.40749999999988

diff_temperature_at_ground: -0.1370299999999932
diff_total_cloud_coverage: 17.02929999999996
diff_tws: 1.5321286032180332
diff_twd: -13.530560546084796

Transition 6-6 ([22.5-45] - [22.5-45]): Range level average differences

diff_temp: 0.03247966666666002
diff_humidity: -0.2788000000000134
diff_precipitation: 0.0209999999999998
diff_pressure: -0.19701660156249545
diff_gust: -1.4190045389811214
diff_high_cloud_coverage: 0.644333333333309
diff_low_cloud_coverage: -0.548033333333268
diff_medium_cloud_coverage: -0.917999999999963
diff_temperature_at_ground: 0.02482666666667181
diff_total_cloud_coverage: 2.076633333333384
diff_tws: -1.7026728311484716
diff_twd: 10.147272332314712

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Transition 6-6 ([337.5-360] - [22.5-45]): Range level average differences

diff_temp: 0.2527070000000009
diff_humidity: -0.40730000000002065
diff_precipitation: 0.0273999999999987
diff_pressure: -0.21349304199213748
diff_gust: -1.1686903320312556
diff_high_cloud_coverage: 38.87700000000004
diff_low_cloud_coverage: -5.801999999999996
diff_medium_cloud_coverage: 4.563999999999998
diff_temperature_at_ground: -0.08328000000000912
diff_total_cloud_coverage: 37.94800000000004
diff_tws: -0.5968748803157476
diff_twd: 28.614606560539073

Transition 6-6 ([337.5-360] - [337.5-360]): Range level average differences

diff_temp: 0.09225899999999854
diff_humidity: -0.12310000000002219
diff_precipitation: 0.1046000000000003
diff_pressure: -0.21965667724612103
diff_gust: -0.4318726562499915

diff_high_cloud_coverage: 5.99299999999981
diff_low_cloud_coverage: -13.83499999999987
diff_medium_cloud_coverage: -2.070599999999993
diff_temperature_at_ground: 0.2254600000001243
diff_total_cloud_coverage: -6.04400000000011
diff_tws: -0.9565203757689985
diff_twd: 6.852626409302616

Transition 6-6: Overall level average differences

diff_temp: 0.13500481249999763
diff_humidity: -0.69713125
diff_precipitation: 0.03651875000000016
diff_pressure: -0.19897817611694535
diff_gust: -1.1987078722953792
diff_high_cloud_coverage: 3.670312500000002
diff_low_cloud_coverage: -2.751125000000027
diff_medium_cloud_coverage: -3.822137500000024
diff_temperature_at_ground: 0.01636625000001026
diff_total_cloud_coverage: 6.861006249999997
diff_tws: -0.27669398277751206
diff_twd: 7.047472661846379

