

## Hourly Temperature/Dewpoint Change Summaries (TT/DD)

**Product Description:** These summaries provide monthly-summarized temperature and dew-point changes by hour, stratified by ceiling, wind direction, and wind speed categories for stations with at least 15 years of surface observations. The 15 years minimum is necessary to ensure a quality product.

Hourly temperature/dew-point change summaries are displayed in a table by wind direction (DIR) / wind speed (SPD) and hour. The columns are broken out by hours in local standard time (LST). Each row lists a direction category, a speed category and the hourly change in temperature/dew point (negative for down and positive for up). The number of times the condition occurred is listed below the hourly change value. The bottom of each table has an all categories (ALL CAT) row and a total cases (TOT CASES) row.

The customer can specify up to five different ceiling categories, six wind sectors and three wind speed classifications for each location. These need to be specified before a new site is requested.

**Known Limitations:** The number of observations for a station. If a station is limited duty or has been closed for any length of time, the observation counts may be low, thereby degrading the overall quality of any product produced.

From this Travis AFB example, the customer chose five wind sectors: (1) 360 – 100, (2) 101 – 180, (3) 181 – 270, (4) 271 – 320, (5) 321 – 359 for the month of January. The following ceiling categories were selected for both temperature and dew point: ceilings < 3,000; ceilings > 3,000 but < 12,000; ceilings > 12,000 but < 20,000; ceilings  $\geq$  20,000. NOTE: All six wind sectors are displayed, but the row for the sixth wind sector is filled with zeroes. Period of record used : 4308 – 9712.

TRAVIS AFB/FAIRFLD

JANUARY -- CEILING LESS THAN 3000 FT

AVERAGE HOURLY TEMPERATURE CHANGE DATA (DEG F) AND NUMBER OF CASES

		HOURS LST																							
DIR	SPD	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	13+	-0.2	-0.3	0.4	0.1	-0.2	-0.6	-1.1	0.1	0.5	0.6	0.8	0.5	0.8	0.6	-0.2	0.1	-0.9	-0.9	-0.6	0.0	-0.2	-0.0	-0.0	-0.3
		7	7	8	12	13	10	10	7	13	20	18	16	13	9	9	12	13	11	12	11	11	9	11	10
2	13+	-0.1	0.2	0.0	0.1	0.7	0.2	-0.1	0.1	0.4	0.6	0.4	1.1	0.5	-0.2	0.3	-0.4	-0.0	0.1	-0.1	0.3	0.4	-0.2	0.1	0.5
		23	29	36	25	27	26	33	34	28	31	31	33	28	27	25	21	20	20	18	18	13	16	15	17
3	13+	1.6	-0.5	-0.4	0.5	-0.1	1.4	0.8	0.6	0.6	0.7	1.2	0.7	0.8	-0.2	-0.1	-0.9	-1.3	-0.8	-1.3	-0.2	0.0	-0.7	-0.2	-0.7
		8	9	5	9	14	5	5	7	13	10	16	18	30	21	22	19	12	12	8	10	11	14	14	7
4	13+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-7.0	0.0	0.0	0.0	0.0	0.0	0.0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5	13+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	0.0	-2.0	1.0	0.0	0.0	0.9	-2.0	0.5	-1.1	0.0	0.0	0.0	-2.0	0.0	0.0	0.0
		0	1	0	0	0	0	0	2	1	1	3	1	1	2	2	2	1	0	0	0	1	0	0	0
6	13+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	6-12	-0.0	-0.1	-0.1	-0.2	-0.3	-0.1	-0.1	0.3	0.6	0.9	1.0	0.9	0.9	0.4	0.0	-0.3	-0.8	-0.6	-0.2	-0.3	-0.2	-0.2	-0.2	-0.1
		64	70	75	74	85	95	109	107	115	140	144	128	113	104	77	52	44	45	42	35	39	47	51	53
2	6-12	0.2	0.0	-0.2	-0.0	0.0	-0.1	0.2	0.1	0.5	1.1	1.0	1.0	0.5	0.2	0.3	-0.2	-0.4	-0.4	-0.2	0.0	0.2	-0.0	-0.2	-0.1
		36	42	40	52	47	48	43	43	55	45	42	48	36	56	45	46	49	36	42	41	44	39	40	38
3	6-12	0.6	-0.3	0.0	0.1	-0.6	0.0	-0.1	0.8	1.4	1.9	1.2	0.6	0.3	0.3	-0.3	-0.4	-1.0	-0.4	-0.3	-0.3	-0.3	0.2	-0.0	0.2
		13	16	23	22	22	18	18	26	19	25	27	33	37	32	36	30	27	29	27	15	21	17	20	19
4	6-12	1.1	0.0	0.2	0.0	-0.5	-1.1	0.0	-1.0	0.0	1.1	0.0	0.0	-4.0	0.0	0.0	0.0	-0.9	0.0	0.0	-0.5	-1.5	0.0	0.0	-1.0
		1	0	3	0	2	1	0	2	0	1	0	1	1	0	0	0	1	0	0	2	2	0	3	
5	6-12	0.2	-0.4	0.5	0.1	0.5	0.2	-1.0	0.7	2.1	0.3	1.5	1.6	-1.1	0.0	0.0	0.9	0.0	-0.4	-2.3	-0.4	0.0	-2.5	0.9	0.0
		4	6	4	3	4	6	2	3	3	3	2	3	1	0	0	1	0	3	3	3	2	2	3	0
6	6-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C	< 6	-0.1	-0.1	-0.0	0.1	-0.0	0.0	-0.1	0.3	0.8	1.2	1.1	1.1	1.0	0.8	0.3	-0.1	-0.5	-0.7	-0.4	-0.3	-0.1	-0.0	-0.1	-0.2
		242	239	233	277	271	280	287	281	247	218	196	205	185	159	148	159	168	200	189	200	207	206	216	224
ALL CATS		0.0	-0.1	-0.0	0.0	-0.1	-0.0	-0.1	0.3	0.7	1.1	1.0	0.9	0.8	0.5	0.2	-0.2	-0.6	-0.6	-0.4	-0.2	-0.1	-0.1	-0.1	-0.2
TOT CASES		433	466	484	522	543	536	559	560	557	550	524	521	496	453	402	384	374	382	375	370	379	388	401	405

TRAVIS AFB/FAIRFLD

JANUARY - - CEILING LESS THAN 3000 FT

AVERAGE HOURLY DEW POINT CHANGE DATA (DEG F) AND NUMBER OF CASES

HOURS LST

DIR	SPD	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	13+	0.4	0.6	0.6	0.4	-0.4	-0.4	-1.1	-0.8	0.2	0.2	0.5	-0.3	0.4	0.4	0.3	0.2	-0.5	-1.5	-0.5	0.2	-0.5	-0.6	-0.1	0.1
		7	7	8	12	13	10	10	7	13	20	18	16	13	9	9	12	13	11	12	11	11	9	11	10
2	13+	0.2	-0.1	0.3	0.4	0.5	0.3	-0.1	-0.1	0.4	0.6	0.2	1.1	0.5	0.5	0.5	-0.0	0.5	0.1	0.4	0.2	0.3	-0.0	-0.2	0.7
		23	29	36	25	27	26	33	34	28	31	31	33	28	27	25	21	20	20	18	18	13	16	15	17
3	13+	0.5	-0.7	-0.4	0.3	1.3	1.4	0.9	-0.0	0.5	0.5	0.9	0.1	0.1	0.0	-0.3	-0.2	0.0	-1.2	-0.2	-0.2	0.2	-1.0	0.4	-0.0
		8	9	5	9	14	5	5	7	13	10	16	18	30	21	22	19	12	12	8	10	11	14	14	7
4	13+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-7.9	0.0	0.0	0.0	0.0	0.0	0.0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5	13+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	0.0	-2.0	0.1	0.0	0.0	0.9	-2.1	0.5	-1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0	1	0	0	0	0	0	2	1	1	3	1	1	1	2	2	1	0	0	0	1	0	0	0
6	13+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	6-12	0.1	0.1	-0.2	-0.1	-0.2	-0.0	-0.1	0.2	0.4	0.7	0.5	0.5	0.4	0.2	0.0	0.1	-0.2	-0.2	0.1	-0.3	-0.2	0.0	-0.1	-0.0
		64	70	75	74	85	95	109	107	115	140	144	128	113	104	77	52	44	45	42	35	39	47	51	53
2	6-12	-0.3	0.1	0.1	-0.1	-0.1	0.4	0.1	0.2	0.4	0.6	0.8	0.7	0.6	0.5	0.4	0.2	0.1	-0.1	0.2	0.2	0.4	-0.2	0.0	0.1
		36	42	40	52	47	48	43	43	55	45	42	48	36	56	45	46	49	36	42	41	44	39	40	38
3	6-12	0.8	0.1	0.1	0.2	-0.5	0.0	0.1	0.5	1.2	1.0	0.5	0.4	0.6	0.3	0.4	0.3	-0.3	-0.2	-0.3	-0.4	-0.2	0.0	-0.1	0.1
		13	16	23	22	22	18	18	26	19	25	27	33	37	32	36	30	27	29	27	15	21	17	20	19
4	6-12	0.9	0.0	0.6	0.0	-0.5	2.0	0.0	-1.5	0.0	1.1	0.0	-1.1	-4.0	0.0	0.0	0.0	-3.1	0.0	0.0	-0.1	-2.0	0.0	0.0	-1.0
		1	0	3	0	2	1	0	2	0	1	0	1	0	0	0	0	1	0	0	2	2	2	0	3
5	6-12	-0.5	0.3	0.5	-0.7	0.8	-0.0	-0.5	1.0	1.7	-0.7	1.5	-0.7	-0.9	0.0	0.0	0.0	0.0	-1.7	-2.0	-0.4	-0.5	-1.5	0.6	0.0
		4	6	4	3	4	6	2	3	3	3	2	3	1	0	0	1	0	3	3	3	2	2	3	0
6	6-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C < 6	-0.0	-0.0	0.1	0.1	0.0	0.1	-0.1	0.3	0.7	1.1	0.9	0.7	0.6	0.6	0.2	-0.0	-0.3	-0.3	-0.2	-0.2	0.0	0.1	-0.1	-0.1	
		242	239	233	277	271	280	287	281	247	218	196	205	185	159	148	159	168	200	189	200	207	206	216	224
ALL CATS		0.0	0.0	0.1	0.1	-0.0	0.1	-0.1	0.2	0.6	0.8	0.7	0.5	0.5	0.4	0.2	0.0	-0.2	-0.3	-0.1	-0.1	0.0	-0.0	-0.1	-0.0
TOT CASES		433	466	484	522	543	536	559	560	557	550	524	521	496	453	402	384	374	382	375	370	379	388	401	405

TRAVIS AFB/FAIRFLD

JANUARY - - CEILING GE 3000 FT BUT LT 12000 FT

AVERAGE HOURLY TEMPERATURE CHANGE DATA (DEG F) AND NUMBER OF CASES

DIR	SPD	HOURS LST																								
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	13+	-0.8	-0.4	0.1	-0.4	0.2	-0.5	0.5	-0.1	0.2	1.4	1.6	1.8	0.7	0.4	-0.2	-0.5	-0.5	-1.0	-1.0	-0.0	0.0	0.6	-0.3	-0.7	
		5	8	7	8	6	8	6	8	10	12	9	9	12	19	11	9	10	8	5	6	5	6	7	6	
2	13+	-0.3	0.1	-0.2	0.1	0.2	-0.1	-0.1	0.8	1.0	1.1	1.1	0.4	0.7	0.3	0.1	-0.5	-0.2	-0.1	0.2	0.1	0.1	-0.1	-0.0	0.1	
		31	27	20	22	28	28	30	26	33	31	39	36	37	36	30	28	22	24	24	29	24	26	31	30	
3	13+	0.1	0.3	-0.3	-0.0	-0.7	-0.5	0.4	0.1	1.0	0.4	0.9	1.0	-0.2	0.6	-0.6	-1.1	-0.9	-1.3	-0.6	-0.2	-0.3	0.2	0.0	0.0	
		9	11	12	9	6	13	8	6	6	11	12	16	21	29	27	21	19	14	11	13	20	13	11	11	
4	13+	-1.1	-1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
		1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	
5	13+	0.0	-0.9	0.0	0.0	-0.9	6.1	0.0	0.0	1.1	0.0	1.1	0.0	0.0	0.0	0.0	-4.0	-2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
		0	1	0	0	1	1	1	0	1	0	1	0	0	0	1	1	0	3	0	1	1	0	0		
6	13+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1	6-12	-0.2	-0.1	-0.2	-0.1	0.1	0.4	-0.2	0.2	1.4	1.6	1.5	1.3	1.0	0.2	-0.0	-0.3	-1.1	-1.0	-0.3	-0.1	-0.1	-0.1	-0.1	-0.1	
		28	25	25	26	29	28	27	29	23	27	39	42	45	45	49	41	32	20	24	28	28	34	30	30	
2	6-12	-0.0	-0.5	-0.1	-0.0	-0.1	-0.2	-0.0	0.3	1.5	1.7	1.4	1.2	0.8	0.2	0.2	-0.3	-1.0	-0.6	-0.3	-0.5	0.1	-0.0	-0.1	0.4	
		37	38	34	36	36	30	32	39	32	40	34	31	41	34	36	36	39	45	36	33	24	37	34	39	
3	6-12	-0.1	-0.3	0.2	-0.2	0.0	-0.1	-0.3	0.4	1.4	1.8	0.9	1.2	0.7	0.3	0.1	-1.1	-1.0	-1.2	-0.4	-0.5	-0.2	-0.3	-0.3	-0.1	
		21	24	33	28	29	33	27	30	32	36	37	40	41	41	52	54	56	48	51	51	42	39	31	30	
4	6-12	0.0	-0.4	0.9	0.0	0.9	0.0	1.6	0.0	0.0	1.1	3.1	2.0	0.0	0.3	-2.0	-5.0	-2.0	0.0	0.0	-0.4	0.7	0.0	0.0	-1.1	
		2	2	1	1	2	0	2	0	0	1	1	1	0	3	1	1	1	1	2	3	0	1	1		
5	6-12	0.0	-0.6	0.0	-0.4	0.0	0.4	1.0	0.0	1.0	3.4	-1.0	3.1	-0.5	0.5	1.0	-2.3	2.0	-0.9	-1.3	-1.1	0.0	-0.3	-0.4	-0.4	
		0	3	1	2	0	2	2	0	3	3	2	1	2	2	2	3	1	1	3	1	1	4	2	3	
6	6-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
C	< 6	-0.3	-0.1	-0.1	-0.1	-0.2	-0.1	-0.3	0.3	1.6	1.6	1.6	1.5	1.1	0.7	0.3	-0.3	-1.2	-1.1	-0.8	-0.4	-0.3	-0.3	-0.2	-0.1	
		100	102	105	97	91	102	118	123	104	72	68	71	66	65	76	91	100	105	99	97	94	91	84	86	
ALL CATS		-0.3	-0.1	-0.1	-0.1	-0.0	-0.0	-0.2	0.4	1.4	1.6	1.3	1.2	0.8	0.4	0.1	-0.6	-1.0	-0.9	-0.5	-0.3	-0.2	-0.2	-0.2	-0.0	
TOT CASES		247	261	258	252	247	264	277	280	263	252	271	271	288	300	304	308	308	300	290	275	278	268	265	257	257

TRAVIS AFB/FAIRFLD

JANUARY - - CEILING GE 3000 FT BUT LT 12000 FT

AVERAGE HOURLY DEW POINT CHANGE DATA (DEG F) AND NUMBER OF CASES

HOURS LST

DIR	SPD	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	13+	-0.8	-0.4	-0.3	-0.1	-0.7	-0.2	0.3	0.1	0.5	0.7	0.0	1.1	0.4	0.0	-0.1	0.3	-0.2	-0.9	-1.0	0.4	-0.6	-1.0	-0.9	1.6
		5	8	7	8	6	8	6	8	10	12	9	9	12	19	11	9	10	8	5	6	5	6	7	6
2	13+	-0.1	0.0	-0.2	-0.3	0.5	0.2	-0.1	0.3	0.6	0.2	0.6	0.5	0.5	0.1	0.3	-0.0	-0.0	0.0	0.4	0.0	-0.1	0.1	-0.2	-0.1
		31	27	20	22	28	28	30	26	33	31	39	36	37	36	30	28	22	24	24	29	24	26	31	30
3	13+	-0.3	0.5	-0.7	-0.5	-0.9	-0.2	-0.6	0.1	0.7	-0.1	-0.4	-0.5	-0.7	-0.2	0.3	-0.8	-0.6	-0.8	0.0	-0.1	0.2	0.2	-0.8	-0.1
		9	11	12	9	6	13	8	6	6	11	12	16	21	29	27	21	19	14	11	13	20	13	11	11
4	13+	1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	5.9
		1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
5	13+	0.0	-1.1	0.0	0.0	-2.0	-2.9	-5.9	0.0	1.1	0.0	-0.9	0.0	0.0	0.0	0.0	0.0	2.0	0.0	-1.3	0.0	0.0	0.0	0.0	0.0
		0	1	0	0	1	1	1	0	1	0	0	0	0	0	1	1	0	3	0	1	1	0	0	
6	13+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	6-12	-0.2	-0.0	0.2	0.2	0.1	0.1	0.3	-0.2	0.5	0.6	0.8	0.3	0.2	-0.3	0.3	-0.0	0.3	0.3	-0.5	-0.2	-0.0	0.2	-0.0	-0.3
		28	25	25	26	29	28	27	29	23	27	39	42	45	45	49	41	32	20	24	28	28	34	30	30
2	6-12	0.1	-0.3	0.2	0.1	-0.1	-0.0	0.1	0.2	1.1	1.2	0.7	0.3	0.4	0.2	0.5	0.3	-0.1	-0.2	-0.0	-0.3	0.2	0.1	0.1	0.1
		37	38	34	36	36	30	32	39	32	40	34	31	41	34	36	36	39	45	36	33	24	37	34	39
3	6-12	-0.1	-0.9	-0.5	0.2	-0.0	-0.0	-0.3	0.5	0.7	0.9	0.3	0.1	-0.1	0.1	-0.0	0.2	-0.3	-0.2	-0.0	0.1	-0.6	0.0	-0.3	0.2
		21	24	33	28	29	33	27	30	32	36	37	40	41	41	52	54	56	48	51	51	42	39	31	30
4	6-12	0.0	1.0	0.0	-0.9	-1.4	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0	0.0	0.4	3.1	5.9	-5.0	0.0	2.0	1.5	0.0	0.0	-7.0	-2.0
		2	2	1	1	2	0	2	0	0	1	1	1	0	3	1	1	1	1	2	3	0	1	1	
5	6-12	0.0	0.7	0.0	-0.5	0.0	-0.9	-1.0	0.0	1.0	0.6	0.5	2.0	0.1	0.0	0.0	-2.6	0.0	0.0	-0.3	0.0	0.0	-0.5	-0.5	0.4
		0	3	1	2	0	2	2	0	3	3	2	1	2	2	2	3	1	1	3	1	1	4	2	3
6	6-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C	< 6	-0.1	-0.1	0.1	-0.0	-0.0	-0.0	-0.2	0.1	1.2	1.0	0.8	0.7	0.3	0.2	-0.0	0.4	0.1	-0.3	-0.1	0.0	-0.1	-0.1	0.0	-0.1
		100	102	105	97	91	102	118	123	104	72	68	71	66	65	76	91	100	105	99	97	94	91	84	86
ALL CATS		-0.1	-0.1	0.0	-0.1	-0.0	-0.0	-0.2	0.2	0.9	0.8	0.6	0.4	0.2	0.0	0.2	0.1	-0.0	-0.3	-0.1	-0.0	-0.2	0.0	-0.1	-0.0
TOT CASES		247	261	258	252	247	264	277	280	263	252	271	271	288	300	304	308	308	290	275	278	268	265	257	257

TRAVIS AFB/FAIRFLD

JANUARY - - CEILING GE 12000 BUT LT 20000 FT

AVERAGE HOURLY TEMPERATURE CHANGE DATA (DEG F) AND NUMBER OF CASES

DIR	SPD	HOURS LST																							
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	13+	-1.1	1.0	2.0	-0.5	-6.5	0.9	-2.0	-1.0	1.4	2.0	2.8	2.3	0.9	-0.3	0.0	0.0	0.0	-0.9	-0.9	0.0	1.0	-0.5	-2.0	-0.9
		1	2	4	2	2	3	1	2	2	6	7	3	2	3	0	0	0	2	1	1	2	2	1	1
2	13+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	1.1	1.9	0.4	0.5	-0.5	-0.5	-1.1	-0.9	0.0	0.0	0.0	-0.9	0.0	0.0	0.0
		0	0	0	0	1	0	1	0	3	1	3	3	2	2	1	1	0	1	0	1	0	0	0	0
3	13+	4.0	0.0	0.9	-2.0	0.9	0.0	-0.3	1.0	2.0	1.9	1.2	1.3	1.5	0.0	-0.0	-0.1	-2.3	-1.3	-0.1	-0.4	0.7	0.0	0.0	0.0
		1	0	1	1	1	4	2	3	2	5	4	2	4	5	8	7	3	3	2	3	0	2	0	0
4	13+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
5	13+	0.0	1.1	1.1	-1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
		1	1	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
6	13+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	6-12	-1.0	-0.8	-0.8	0.0	0.4	0.8	-0.1	1.3	2.6	2.8	2.5	2.3	1.6	0.6	0.3	-0.7	-2.0	-2.0	-0.5	-0.4	-0.4	-0.1	-0.4	-0.4
		5	4	5	2	3	4	10	11	17	24	27	19	21	20	18	15	11	6	7	3	3	5	5	2
2	6-12	-0.1	-0.5	-2.0	0.0	0.0	0.7	0.0	1.7	4.0	0.0	2.5	2.1	0.5	1.7	0.9	-0.6	-1.3	-2.0	-0.6	-1.4	0.5	-1.1	0.4	0.0
		2	2	1	0	0	4	0	4	3	1	2	8	2	4	6	7	3	3	4	2	1	2	0	0
3	6-12	-0.2	0.3	0.4	-0.6	-0.2	-0.8	-0.7	1.1	2.7	3.2	2.9	1.4	0.8	1.4	0.6	-0.7	-1.4	-1.9	-0.8	-0.5	1.0	1.5	-0.8	-0.3
		9	4	8	5	4	4	7	1	7	8	10	7	10	11	5	9	9	8	11	4	2	7	5	9
4	6-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
5	6-12	0.0	0.0	0.0	0.9	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	0.0	0.0	-1.1	0.0	0.0	-0.9	-1.1	0.0	0.0
		0	0	0	1	0	2	0	0	0	0	0	0	0	0	2	0	0	1	0	0	1	1	0	0
6	6-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C	< 6	-0.3	-0.5	-0.2	0.2	-0.5	0.0	-0.1	0.4	2.5	3.0	2.5	2.1	1.6	1.1	0.2	-0.6	-2.0	-2.3	-1.2	-0.8	-0.3	-0.5	-0.0	-0.4
		30	25	24	23	24	26	33	44	46	31	27	18	24	31	36	41	39	37	35	33	35	32	29	31
ALL CATS		-0.3	-0.3	0.0	0.0	-0.6	0.2	-0.2	0.7	2.5	2.8	2.4	1.9	1.5	0.9	0.2	-0.6	-1.9	-2.0	-1.0	-0.7	-0.1	-0.1	-0.2	-0.4
TOT CASES		54	41	47	38	38	46	64	71	84	87	83	69	70	79	87	91	78	68	68	50	54	52	46	47

TRAVIS AFB/FAIRFLD

JANUARY - - CEILING GE 12000 BUT LT 20000 FT

AVERAGE HOURLY DEW POINT CHANGE DATA (DEG F) AND NUMBER OF CASES

HOURS LST

DIR	SPD	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	13+	0.0	-0.9	-0.5	0.5	0.5	-0.4	-0.9	-0.4	1.0	0.2	0.6	0.4	0.0	-0.3	0.0	0.0	0.0	0.0	-0.9	-2.2	-2.0	-0.4	2.9	-1.1
		1	2	4	2	2	3	1	2	2	6	7	3	2	3	0	0	0	2	1	1	2	2	1	1
2	13+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	3.1	1.0	-0.3	-1.4	-0.5	0.0	0.9	0.0	0.0	0.0	-2.0	0.0	0.0	0.0	0.0
		0	0	0	0	1	0	1	1	0	3	1	3	3	2	2	1	1	0	1	0	1	0	0	0
3	13+	2.0	0.0	-0.9	-1.1	0.0	-2.0	-1.7	0.0	0.3	-1.3	-0.8	-0.3	-0.4	1.0	-0.8	-1.1	-0.6	-0.4	-1.0	0.5	1.9	0.0	-2.0	0.0
		1	0	1	1	1	4	2	3	2	5	4	2	4	5	8	7	3	3	2	3	0	2	0	0
4	13+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5	13+	0.2	4.0	-8.1	-2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
		1	1	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
6	13+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	6-12	0.4	-1.0	-0.8	0.0	1.0	-1.0	-0.1	0.1	1.2	0.8	1.0	-0.9	0.9	0.1	0.5	0.4	0.1	0.0	-0.5	-0.4	-1.4	0.2	0.6	0.5
		5	4	5	2	3	4	10	11	17	24	27	19	21	20	18	15	11	6	7	3	3	5	5	2
2	6-12	-0.1	0.0	-0.9	0.0	0.0	-0.3	0.0	0.9	3.7	0.9	0.5	0.5	-0.1	0.3	-0.2	0.4	-0.7	0.4	-0.4	-0.7	1.0	0.0	0.9	0.0
		2	2	1	0	0	4	0	4	3	1	2	8	2	4	6	7	3	3	3	4	2	1	2	0
3	6-12	0.3	0.2	0.0	0.4	0.0	-0.5	-0.8	-1.1	1.4	1.7	0.9	-0.1	-0.8	-0.1	-1.4	-0.1	-0.2	-0.5	-0.4	1.6	1.4	1.0	0.0	-0.2
		9	4	8	5	4	4	7	1	7	8	10	7	10	11	5	9	9	8	11	4	2	7	5	9
4	6-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
5	6-12	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.5	0.0	0.0	-2.0	0.0	0.0	-1.1	0.0	0.0	0.0
		0	0	0	1	0	2	0	0	0	0	0	0	0	0	2	0	0	1	0	0	1	1	0	0
6	6-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C	< 6	0.1	-0.3	-0.3	-0.2	-0.3	-0.1	0.1	0.3	1.7	2.0	0.9	0.3	0.2	0.2	0.0	0.3	0.1	-0.4	-0.3	-0.1	-0.0	0.1	-0.0	-0.3
		30	25	24	23	24	26	33	44	46	31	27	18	24	31	36	41	39	37	35	33	35	32	29	31
ALL CATS		0.1	-0.2	-0.4	-0.1	-0.1	-0.1	-0.1	0.3	1.6	1.3	0.8	-0.0	0.3	0.1	-0.1	0.2	0.1	-0.3	-0.4	0.0	-0.1	0.3	0.0	-0.2
TOT CASES		54	41	47	38	38	46	64	71	84	87	83	69	70	79	87	91	78	68	68	50	54	52	46	47

TRAVIS AFB/FAIRFLD

JANUARY - - CEILING GREATER THAN OR EQUAL TO 20000 FT

AVERAGE HOURLY TEMPERATURE CHANGE DATA (DEG F) AND NUMBER OF CASES

HOURS LST

DIR	SPD	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	13+	0.1	-0.2	-0.4	0.0	-0.9	-0.5	-0.4	0.6	3.9	3.2	3.2	2.2	1.8	1.1	0.0	-0.8	-2.8	-2.0	-0.6	-0.6	-0.1	-0.5	-1.2	-0.4
		46	48	50	49	48	48	45	49	66	79	101	116	117	112	93	59	44	38	42	43	47	46	47	50
2	13+	5.0	-3.1	0.0	-0.3	0.0	0.5	0.0	0.0	0.0	1.5	2.7	3.1	1.0	-1.1	-1.0	1.1	-2.0	0.0	0.0	0.0	-1.5	1.1	-1.1	0.0
		1	1	0	3	2	2	0	0	0	4	3	1	2	1	2	1	2	0	1	0	2	1	1	0
3	13+	0.2	-0.3	0.3	-1.3	-0.8	-0.5	0.2	1.6	2.8	2.1	2.2	1.8	0.9	0.4	-0.1	-1.5	-2.8	-2.1	-1.0	-1.1	0.0	-0.6	-0.5	-0.8
		20	6	12	11	8	6	5	7	12	19	20	26	21	30	35	25	19	20	25	23	16	20	19	10
4	13+	0.0	-1.1	-0.4	0.0	0.0	0.5	-1.0	2.0	3.0	2.7	2.1	0.0	0.5	0.4	0.0	0.0	0.0	-0.9	0.0	-1.4	-0.7	-0.5	0.0	0.1
		1	2	2	0	1	2	2	1	2	3	2	0	4	2	1	0	0	1	0	2	3	2	1	2
5	13+	-0.3	-0.4	0.3	0.2	-0.1	0.1	-0.3	2.1	3.1	2.5	3.0	2.3	1.1	0.9	-0.2	-1.4	-2.6	-0.9	-0.1	-0.4	-0.5	-0.7	-0.0	0.1
		23	16	17	20	20	15	18	21	22	23	23	22	18	18	20	22	14	13	13	20	16	15	16	16
6	13+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	6-12	-0.9	-0.9	-1.1	-0.7	-0.3	-0.9	-0.5	1.4	3.5	4.5	3.9	2.8	2.0	1.4	0.4	-1.0	-3.2	-3.0	-1.8	-1.1	-0.6	-1.0	-0.5	-0.6
		78	80	105	92	82	83	73	78	99	140	153	193	200	194	214	177	86	64	58	56	55	60	70	85
2	6-12	-1.6	-0.8	-0.6	-1.1	-0.8	-1.3	-1.5	-0.2	2.1	5.5	4.3	2.6	2.1	0.7	-0.1	-0.9	-4.2	-4.5	-2.2	-1.2	-0.7	-0.7	-1.1	-0.8
		12	14	13	8	8	9	11	7	7	4	8	5	8	10	11	25	18	24	15	13	14	13	14	8
3	6-12	-0.6	-0.7	-0.4	-0.5	-0.4	-0.6	-0.7	1.0	3.2	3.4	3.1	1.8	1.8	1.5	-0.0	-1.2	-3.0	-2.9	-1.5	-1.3	-1.2	-0.7	-0.5	-0.8
		86	89	57	51	44	46	40	42	49	52	55	53	53	65	63	83	88	106	99	94	97	99	101	99
4	6-12	-1.5	0.7	-0.7	-1.1	-0.6	-0.7	-1.6	0.8	6.5	2.4	2.2	1.5	1.2	0.3	-1.0	-1.0	-4.2	-3.6	-1.2	-2.8	0.6	-0.2	-2.2	0.5
		4	8	9	6	9	9	7	5	2	3	5	7	6	3	2	3	7	10	14	7	9	9	8	4
5	6-12	-0.4	-0.1	0.4	-0.4	-0.1	0.6	0.1	1.3	3.8	4.9	3.9	3.0	1.3	0.9	1.0	-1.2	-3.2	-3.4	-0.2	-0.1	0.3	-0.6	-0.6	-1.2
		13	24	16	19	14	16	11	8	7	8	10	11	3	13	6	8	10	11	15	12	16	19	21	9
6	6-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
C	< 6	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.8	0.5	3.7	4.6	3.9	3.2	2.5	1.7	1.0	-0.5	-3.1	-3.6	-1.9	-1.7	-1.4	-1.2	-1.2	-0.9
		525	477	480	475	470	477	454	427	391	329	290	271	263	269	304	349	481	497	543	581	558	561	546	551
ALL CATS		-0.8	-0.7	-0.6	-0.7	-0.6	-0.6	-0.7	0.7	3.7	4.1	3.7	2.7	2.1	1.4	0.5	-0.8	-3.2	-3.3	-1.7	-1.5	-1.1	-1.0	-1.0	-0.8
TOT CASES		876	839	819	795	779	764	709	700	703	721	728	749	752	776	813	824	846	865	889	907	905	904	904	897

TRAVIS AFB/FAIRFLD

JANUARY - - CEILING GREATER THAN OR EQUAL TO 20000 FT

AVERAGE HOURLY DEW POINT CHANGE DATA (DEG F) AND NUMBER OF CASES

DIR	SPD	HOURS LST																							
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	13+	-0.1	-1.3	-0.0	-0.8	0.0	-0.5	-1.0	0.3	0.8	0.2	-0.1	-1.1	-0.0	-1.0	-0.3	0.0	0.4	-1.0	-1.2	-0.6	-0.6	-0.9	-0.4	-0.7
		46	48	50	49	48	48	45	49	66	79	101	116	117	112	93	59	44	38	42	43	47	46	47	50
2	13+	2.0	-0.9	0.0	-0.7	0.4	0.0	0.0	0.0	0.0	0.5	0.7	0.0	0.4	-0.9	-1.6	-2.2	-0.5	0.0	0.0	0.0	0.5	-1.1	-3.1	0.0
		1	1	0	3	2	2	0	0	0	4	3	1	2	1	2	1	2	0	1	0	2	1	1	0
3	13+	-0.6	-0.2	-0.6	-1.7	-0.3	-0.5	-1.0	1.1	-0.6	0.2	-0.1	-1.0	-0.9	-0.5	-0.2	0.3	-0.9	-0.6	-0.5	-0.8	-0.2	-1.2	-0.6	-1.0
		20	6	12	11	8	6	5	7	12	19	20	26	21	30	35	25	19	20	25	23	16	20	19	10
4	13+	0.0	-0.5	2.1	0.0	-2.0	-1.0	-1.1	0.0	3.1	0.3	1.1	0.0	0.2	-1.4	-0.9	0.0	0.0	-4.0	0.0	0.5	-1.6	-1.6	-5.0	-1.1
		1	2	2	0	1	2	2	1	2	3	2	0	4	2	1	0	0	1	0	2	3	2	1	2
5	13+	-1.1	-0.1	-1.2	-0.4	-0.4	-1.1	-0.2	0.1	0.1	1.5	0.4	-0.5	1.1	-1.7	-1.0	-1.2	-1.6	-1.4	-0.9	-0.2	-0.5	-0.4	-1.4	-0.1
		23	16	17	20	20	15	18	21	22	23	23	22	18	18	20	22	14	13	13	20	16	15	16	16
6	13+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	6-12	-0.5	-0.4	-0.4	-0.4	-0.4	-0.5	0.1	0.5	1.9	1.7	1.1	0.4	0.3	0.1	0.1	0.3	0.1	-0.9	-0.3	-1.1	-0.7	-0.8	-0.6	-0.3
		78	80	105	92	82	83	73	78	99	140	153	193	200	194	214	177	86	64	58	56	55	60	70	85
2	6-12	-0.7	-0.8	-0.5	0.2	-0.6	-0.8	-1.7	1.6	1.5	2.3	0.4	1.8	0.3	0.8	-0.2	0.9	2.0	0.1	-1.1	-0.3	0.2	-0.4	-0.1	-0.4
		12	14	13	8	8	9	11	7	7	4	8	5	8	10	11	25	18	24	15	13	14	13	14	8
3	6-12	-0.7	-0.3	-0.3	-0.4	-0.5	-0.3	-0.6	0.4	2.1	1.2	0.6	-0.1	-0.3	-0.0	-0.1	0.6	-0.3	-0.6	-0.5	-0.6	-0.5	-0.2	-0.3	-0.5
		86	89	57	51	44	46	40	42	49	52	55	53	53	65	63	83	88	106	99	94	97	99	101	99
4	6-12	-1.5	-0.1	-1.3	-1.1	-1.8	-1.8	1.4	0.6	-3.5	0.7	0.2	-0.1	0.5	-1.3	-4.0	-0.7	1.7	0.3	-0.8	-0.8	-1.2	-1.1	-0.6	0.0
		4	8	9	6	9	9	7	5	2	3	5	7	6	3	2	3	7	10	14	7	9	9	8	4
5	6-12	-0.1	-1.4	-0.3	-1.4	-1.1	-0.4	-0.2	-0.1	2.4	0.5	0.4	0.1	0.0	-0.4	0.8	1.2	1.2	-0.3	-1.2	-1.0	-2.3	-0.7	0.2	-0.6
		13	24	16	19	14	16	11	8	7	8	10	11	3	13	6	8	10	11	15	12	16	19	21	9
6	6-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C	< 6	-0.8	-0.5	-0.4	-0.5	-0.5	-0.4	-0.5	0.3	2.6	2.5	1.2	0.7	0.6	0.2	0.2	0.2	0.1	-0.8	-0.6	-0.7	-0.7	-0.6	-0.7	-0.5
		525	477	480	475	470	477	454	427	391	329	290	271	263	269	304	349	481	497	543	581	558	561	546	551
ALL CATS		-0.7	-0.5	-0.4	-0.5	-0.5	-0.5	-0.5	0.3	2.2	1.8	0.9	0.2	0.3	-0.1	0.0	0.3	0.1	-0.8	-0.6	-0.7	-0.7	-0.6	-0.6	-0.5
TOT CASES		876	839	819	795	779	764	709	700	703	721	728	749	752	776	813	824	846	865	889	907	905	904	904	897