

Meteorologist
David Walker

LL 6
5 May 03



Weather Monitoring Log

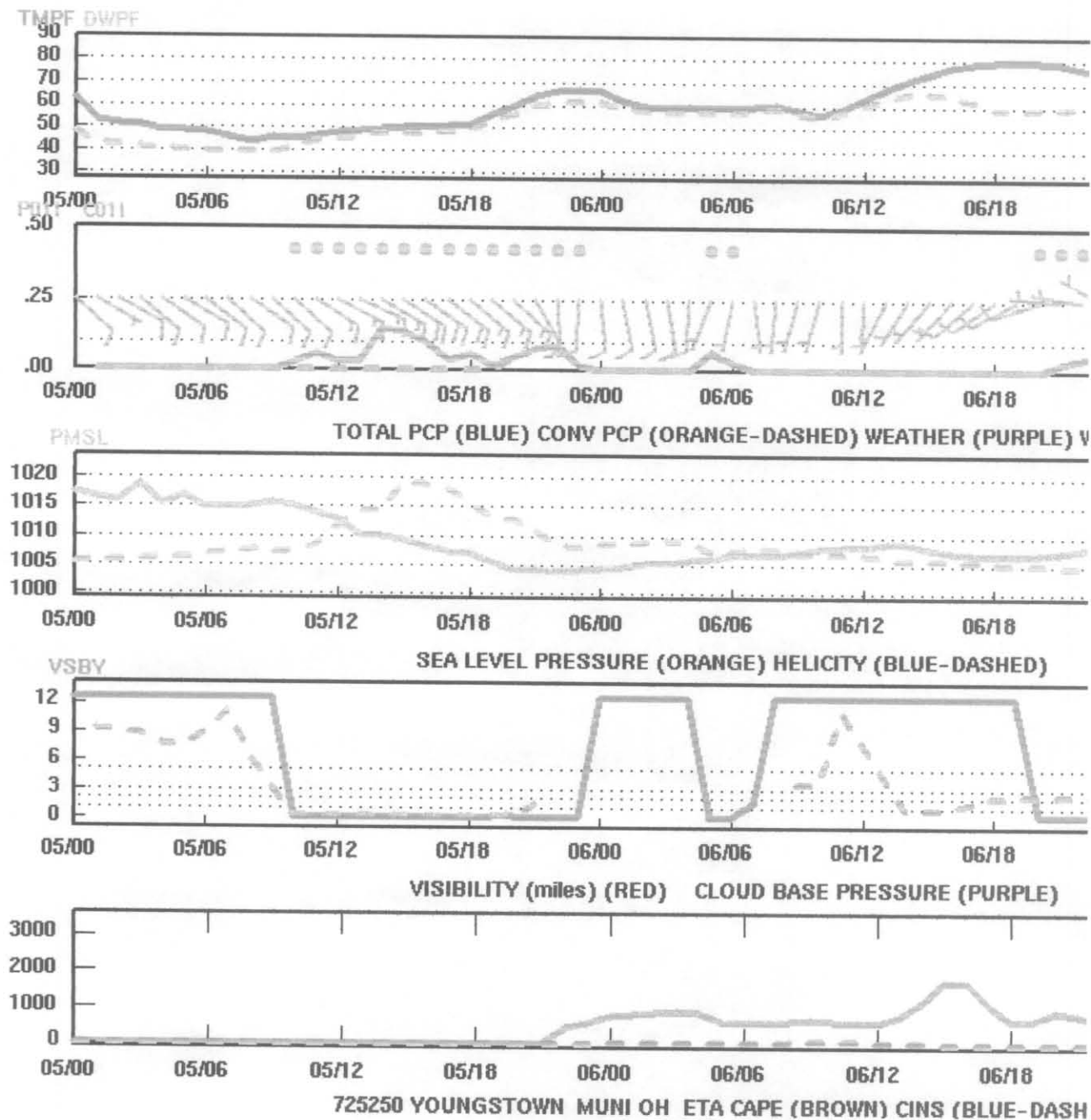
	SKY CONDITIONS	CURRENT WEATHER	GROUND-LEVEL TEMPERATURE	ABOVE-GROUND TEMPERATURE	WIND SPEEDS	WIND DIRECTION	INVERSION PRESENT?
6:00 am							
6:15 am							
6:30 am							
6:45 am	CLOUDY	Lt. RAIN	51	50	3	SE	No
7:00 am	"	"	53	50	4	S	No
7:15 am	"	"	52	50	2	SE	No
7:30 am	"	"	52	50	2	SSE	No
7:45 am	"	"	52	50	2	SE	No
8:00 am	"	"	52	50	2	S	No
8:15 am	"	"	52	50	3	ESE	No
8:30 am	"	"	52	50	2	SE	No
8:45 am	"	"	52	50	5	SE	No
9:00 am	"	"	52	50	4	ESE	No
9:15 am							
9:30 am							
9:45 am							
10:00 am							

	YES	NO
AIR POLLUTION ALERT?		✓
AIR STAGNATION ADVISORIES?		✓
OZONE ACTION ADVISORIES?		✓
SAND/SNOW/ELECTRICAL STORMS?		✓

Weather Forecast

Cloudy skies with showers and thunderstorms.
Winds blowing from the East and SouthEast this AM at 7 to 14 mph.
Winds blowing from the South and SouthEast this PM at 9 to 18 mph.
Morning low temperature near 53. Afternoon high temperature near 60.

725250 ETA 12 KM 60 LYR FCST 2-M TEMP (RED) DEWPOINT (GREEN)



UPPER AIR CALCULATIONS AND PLOTTING (Ver 5.28A-LINUX-X11)

Current filename: /noaaport/nwstg/convert/03050500_upa.wxp

Date: 0000Z 5 MAY 03

Searching for KPIT...

Searching the city database file for: KPIT ...

Date: 0000Z 5 MAY 03

Station: KPIT

WMO ident: 72520

Latitude: 40.50

Longitude: -80.22

Elevation: 373.00

LEV	PRES	HGHT	TEMP	DEWP	RH	DD	WETB	DIR	SPD	THETA	THE-V	THE-W	THE-E	W
	mb	m	C	C	%	C	C	deg	knt	K	K	K	K	g/kg
0	1000	151												
SFC	976	373	16.2	4.2	45	12.0	9.8	100	12	291.4	292.3	284.0	306.6	5.30
2	925	809	12.2	1.2	47	11.0	6.8	113	14	291.8	292.6	283.4	304.9	4.51
3	850	1509	5.4	1.0	73	4.4	3.2	130	14	291.8	292.7	283.7	305.8	4.84
4	767	2339	-1.3	-2.4	92	1.1	-1.8	167	7	293.3	294.0	283.6	305.5	4.18
5	759	2422	0.4	-5.6	64	6.0	-2.1	169	6	296.0	296.6	283.8	305.9	3.32
6	742	2604	0.6	-11.4	40	12.0	-3.8	202	5	298.1	298.5	283.3	304.8	2.15
7	700	3071	-0.7	-16.7	29	16.0	-5.9	275	7	301.7	302.0	284.0	306.4	1.48
8	524	5326	-14.1	-30.1	24	16.0	-17.4	311	18	311.6	311.8	286.6	313.7	0.60
9	500	5680	-17.1	-32.1	26	15.0	-19.8	320	22	312.2	312.3	286.8	314.0	0.52
10	483	5937	-19.3	-34.3	25	15.0	-21.8	320	25	312.6	312.7	286.8	314.1	0.43
11	400	7310	-28.3	-41.3	28	13.0	-29.7	335	34	318.2	318.3	288.5	319.2	0.26
12	364	7984	-31.7	-43.7	30	12.0	-32.9	324	46	322.4	322.4	289.8	323.2	0.22
13	343	8403	-34.1	-38.0	68	3.9	-34.6	317	56	324.6	324.7	290.6	326.2	0.42
14	300	9330	-41.3	-45.6	63	4.3	-41.6	305	78	327.2	327.2	291.2	328.0	0.22
15	250	10540	-51.9	-56.9	55	5.0	-52.0	305	80	328.9	328.9	291.5	329.2	0.07
16	225	11209	-57.7	-62.7	53	5.0	-57.8	305	87	330.1	330.1	291.7	330.2	0.04
17	205	11788	-61.3	-67.1	46	5.8	-61.4	305	94	333.3	333.3	292.6	333.4	0.02
18	200	11940	-62.3	-68.3	44	6.0	-62.4	300	92	334.1	334.1	292.9	334.2	0.02
19	192	12191	-63.3	-69.3	44	6.0	-63.4	305	85	336.4	336.4	293.4	336.5	0.02
20	179	12625	-59.5	-65.5	46	6.0	-59.6	312	81	349.5	349.5	296.5	349.6	0.03
21	150	13730	-59.1	-66.1	40	7.0	-59.2	310	45	368.3	368.3	300.3	368.4	0.04
22	100	16270	-59.1	-67.1	35	8.0	-59.3	300	31	413.5	413.5	307.0	413.8	0.05
23	94	16660	-58.9	-66.9	35	8.0	-59.2	295	26	421.3	421.3	307.9	421.6	0.05
24	76	18002	-57.7	-65.7	35	8.0	-58.0	299	23	450.2	450.2	310.9	450.6	0.07
25	70	18520	-60.3	-68.3	34	8.0	-60.6	300	21	455.4	455.4	311.4	455.7	0.06
26	50	20620	-59.5	-67.5	35	8.0	-59.9	305	9	503.3	503.3	315.2	503.8	0.09
27	44	21417	-61.5	-69.5	34	8.0	-61.9	314	13	517.1	517.1	316.1	517.6	0.07
28	35	22852	-56.7	-65.7	31	9.0	-57.5	319	11	564.6	564.7	318.9	565.7	0.16
29	30	23830	-56.5	-65.5	31	9.0	-57.4	300	9	590.6	590.7	320.2	592.0	0.19
30	25	24987	-56.1	-66.1	27	10.0	-57.3	278	8	623.4	623.5	321.7	625.0	0.21
31	22	25806	-52.5	-63.5	25	11.0	-54.4	262	7	657.3	657.4	323.0	660.1	0.34
32	20	26420	-53.3	-64.3	25	11.0	-55.2	250	6	673.0	673.2	323.6	675.8	0.34
33	15	28271	-53.7	-65.7	22	12.0	-56.1	208	2	729.4	729.6	325.4	732.8	0.37
34	12	29718	-49.7	-62.7	20	13.0	-53.6	256	2	791.7	792.0	327.2	798.5	0.69
TRP	192	12191	-63.3	-69.3	44	6.0	-63.4	305	85	336.4	336.4	293.4	336.5	0.02
WND	205	11788	-61.3	-67.1	46	5.8	-61.4	305	94	333.3	333.3	292.6	333.4	0.02

Sounding variables and indices

1000-500 mb thick: 5529.00 m
Freezing level: 783.10 mb = 2177.58 m = 7144.20 ft
Freezing level: 760.88 mb = 2402.67 m = 7882.68 ft
Freezing level: 722.62 mb = 2819.67 m = 9250.76 ft
Wetbulb zero: 796.59 mb = 2032.90 m = 6669.54 ft
Precipitable water: 0.56 inches
Sfc-500 mean rel hum: 43.22 %
Est. max temperature: 17.06 C = 62.70 F

Sfc-Lift cond lev (LCL): 814.97 mb = 1848.81 m = 6065.59 ft T: 2.66 C
 700-500 lapse rate: 6.29 C/km
 ThetaE index: 1.76 C Layer 925.0- 850.0 mb
 Conv cond level (CCL): 776.56 mb = 2238.48 m = 7344.00 ft
 Mean mixing ratio: 4.76 g/kg
 Conv temperature: 17.93 C = 64.27 F
 Cap Strength: 8.35 C
 Lifted Index: 8.13 C Risk: None
 Lifted Index @300 mb: 15.52 C
 Lifted Index @700 mb: 5.73 C
 Showalter Index: 7.90 C Risk: None
 Total Totals Index: 40.60 C Risk: None
 Vertical Totals Index: 22.50 C
 Cross Totals Index: 18.10 C
 K Index: 7.50 Risk: None
 Sweat Index: 62.00 Risk: None
 Energy Index: 1.74 Risk: None

Parcel Indices

Parcel: using 100 mb layer

CAPE (B+): 1.68 J/kg
 Max Up Vert Vel: 1.83 m/s
 Conv Inhibition (B-): 59585.70 J/kg
 Cap Strength: 8.33 C
 Lift Cond Lev (LCL): 792.59 mb = 2073.54 m = 6802.88 ft
 Lev Free Conv (LFC): -1.00 mb = -9999.00 m = -9999.00 ft

Wind Parameters

Mean winds (0-6000m): 302.2 at 13.9 knts
 Storm direction: 332.2 at 10.5 knts
 Shear (0-3000m) pos: 3.4 neg: 0.0 tot: 3.4 10⁻³/s
 Storm rel Dir Shear (0-3000m): 78.0 deg
 Storm rel helicity (0-3000m) pos: 106.1 neg: 0.0 tot: 106.1 m²/s²
 ave: 35.4 10⁻³ m/s² rel: 0.66
 Storm rel vorticity (0-3000m) horiz: 5.7 stream: 3.8 10⁻³/s
 Energy-Hel index: 0.00
 Bulk Rich Number: 0.02
 Bulk Shear: 95.76 m/s

the smoke drifted to the south at the lowest heights above the ground then started drifting to the SouthEast A couple of hundred above the ground.

David Walker



Weather Monitoring Log

	SKY CONDITIONS	CURRENT WEATHER	GROUND-LEVEL TEMPERATURE	ABOVE-GROUND TEMPERATURE	WIND SPEEDS	WINDS FROM		INVERSION PRESENT?
						WIND DIRECTION		
10:00 am								
10:15 am								
10:30 am	Cloudy	DRY	76	62	2	WNW		No
10:45 am	cloudy	DRY	72	61	1	NW		No
11:00 am	Cloudy	DRY	81	63	1	WNW		No
11:15 am	cloudy	DRY	81	64	2	WNW		No
11:30 am	Cloudy	DRY	83	65	0	WNW		No
11:45 am	Cloudy	DRY	72	64	0	N		No
12:00 pm	Cloudy	DRY	74	64	0	N		No
12:15 pm	cloudy	DRY	83	65	1	N		No
12:30 pm	Cloudy	DRY	72	65	0	NE		No
12:45 pm	Cloudy	DRY	73	64	1	NE		No
1:00 pm	Cloudy	DRY	77	65	0	NE		No
1:15 pm	cloudy	DRY SPRINKLE	71	64	4	W		No
1:30 pm	Cloudy	DRY	72	64	2	WSW		No
1:45 pm	cloudy	SPRINKLE	70	64	2	W		No
2:00 pm	Cloudy	DRY	78	66	2	WNW		No

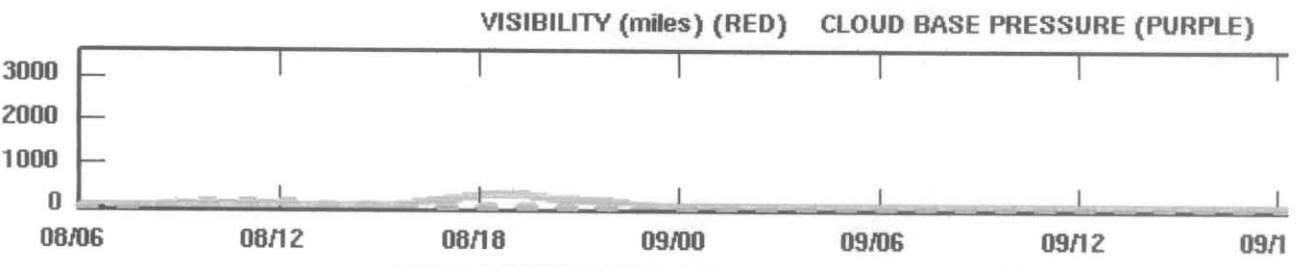
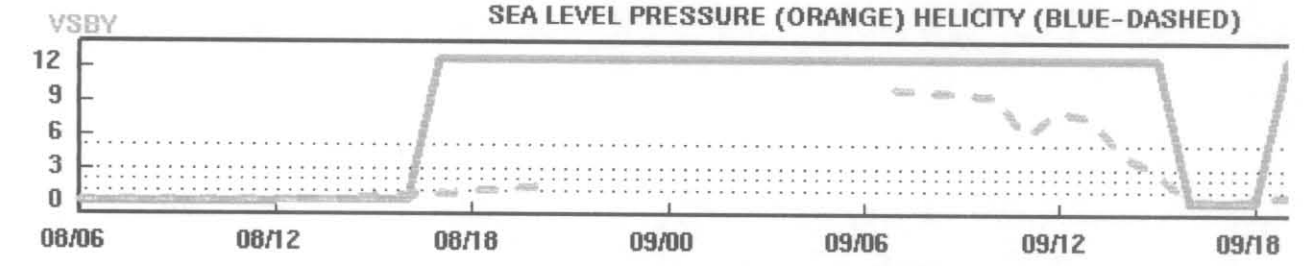
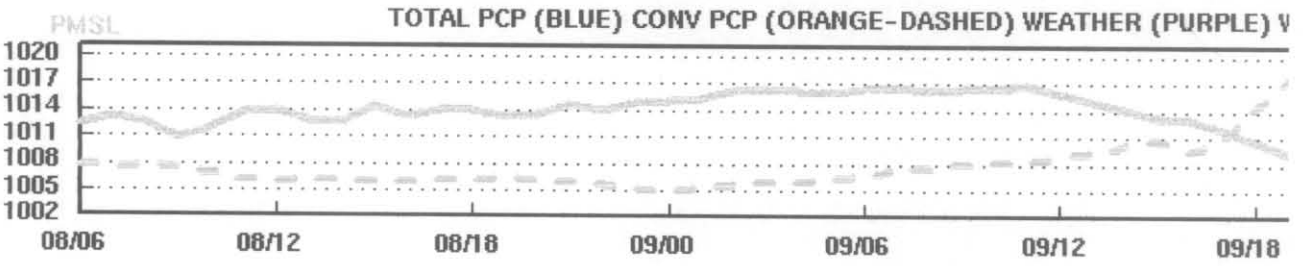
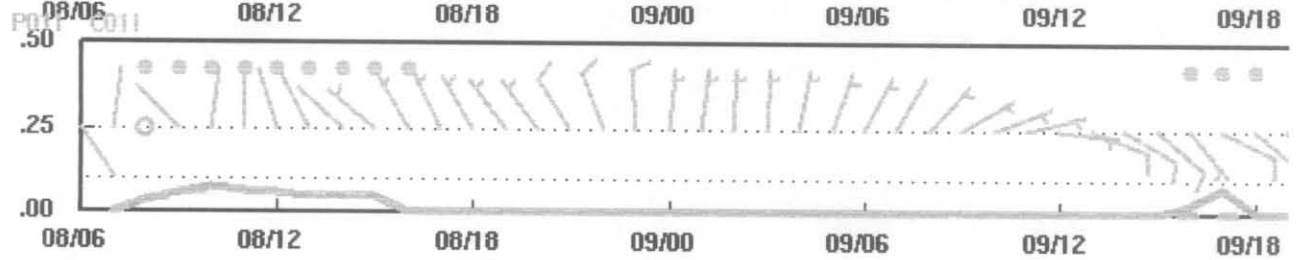
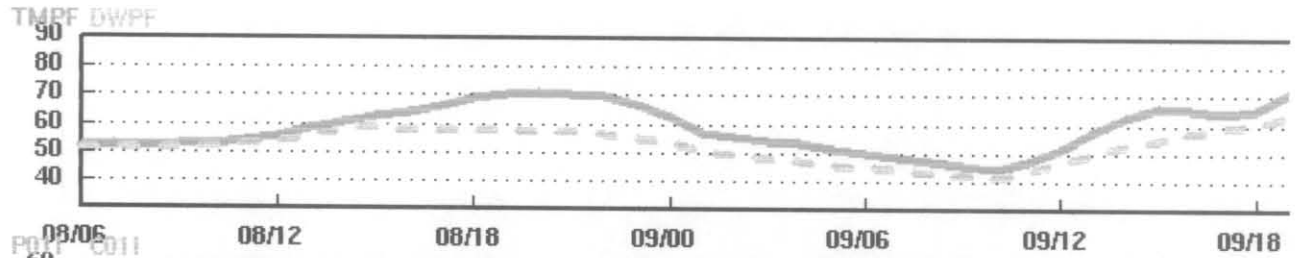
	YES	NO
AIR POLLUTION ALERT?		✓
AIR STAGNATION ADVISORIES?		✓
OZONE ACTION ADVISORIES?		✓
SAND/SNOW/ELECTRICAL STORMS?		✓

LL9
5/8/03

Weather Forecast

Showers ending then partial clearing.
Winds blowing from the North and NorthWest at 4 to 8 mph.
Morning low temperature near 53. Afternoon high temperature near 67.

725250 ETA 12 KM 60 LYR FCST 2-M TEMP (RED) DEWPOINT (GREEN)



725250 YOUNGSTOWN MUNI OH ETA CAPE (BROWN) CINS (BLUE-DASH)

UPPER AIR CALCULATIONS AND PLOTTING (Ver 5.28A-LINUX-X11)

Current filename: /noaaport/nwstg/convert/03050800_upa.wxp

Date: 0000Z 8 MAY 03

Searching for KILN...

Searching the city database file for: KILN ...

Date:0000Z 8 MAY 03

Station: KILN

WMO ident: 72426

Latitude: 39.42

Longitude: -83.82

Elevation: 317.00

LEV	PRES	HGHT	TEMP	DEWP	RH	DD	WETB	DIR	SPD	THETA	THE-V	THE-W	THE-E	W
	mb	m	C	C	%	C	C	deg	knt	K	K	K	K	g/kg
0	1000	86												
SFC	973	317	19.4	17.2	87	2.2	17.9	190	7	294.8	297.1	292.1	331.5	12.79
2	925	756	16.6	13.6	82	3.0	14.7	215	21	296.3	298.2	290.9	327.0	10.64
3	900	989	15.2	11.4	78	3.8	12.9	232	19	297.2	298.9	290.2	324.6	9.45
4	864	1335	14.6	4.6	51	10.0	9.0	264	14	300.0	301.2	288.2	318.4	6.16
5	850	1473	13.6	4.6	54	9.0	8.6	275	14	300.4	301.5	288.4	319.0	6.26
6	700	3073	1.0	0.3	95	0.7	0.7	250	25	303.6	304.6	288.9	320.5	5.59
7	672	3400	-1.3	-1.6	98	0.3	-1.4	250	26	304.6	305.5	288.8	320.0	5.07
8	593	4388	-5.9	-6.2	98	0.3	-6.0	262	30	310.3	311.1	289.7	323.1	4.06
9	543	5071	-11.5	-14.4	79	2.9	-12.5	264	33	311.6	312.0	288.4	319.0	2.31
10	500	5700	-14.7	-16.5	86	1.8	-15.3	260	41	315.1	315.5	289.4	322.1	2.10
11	474	6103	-17.3	-18.6	90	1.3	-17.7	260	46	316.7	317.1	289.6	322.9	1.86
12	462	6294	-18.5	-22.7	69	4.2	-19.6	262	51	317.6	317.8	289.4	322.1	1.34
13	445	6573	-21.7	-32.7	36	11.0	-23.6	264	58	317.0	317.1	288.4	318.9	0.55
14	430	6824	-23.9	-34.9	36	11.0	-25.6	266	65	317.3	317.4	288.4	318.9	0.46
15	400	7350	-26.3	-44.3	17	18.0	-28.2	270	79	320.8	320.8	289.2	321.5	0.19
16	357	8163	-31.7	-41.7	37	10.0	-32.7	266	94	324.2	324.2	290.3	325.2	0.28
17	324	8841	-36.3	-50.3	22	14.0	-37.2	260	102	326.9	327.0	291.0	327.4	0.12
18	300	9370	-40.7	-51.7	30	11.0	-41.3	255	99	328.0	328.0	291.3	328.4	0.11
19	276	9935	-45.6	-53.8	39	8.2	-45.9	250	103	328.9	328.9	291.5	329.3	0.09
20	266	10181	-47.7	-54.7	44	7.0	-48.0	254	100	329.3	329.3	291.6	329.6	0.09
21	250	10590	-50.5	-59.5	34	9.0	-50.7	260	94	331.0	331.0	292.0	331.2	0.05
22	218	11472	-55.7	-64.7	32	9.0	-55.9	260	91	336.2	336.2	293.4	336.3	0.03
23	200	12020	-56.5	-66.5	27	10.0	-56.7	260	84	343.3	343.3	295.1	343.4	0.02
24	160	13418	-61.1	-72.1	22	11.0	-61.2	250	80	358.1	358.1	298.4	358.2	0.01
25	150	13820	-58.5	-69.5	23	11.0	-58.7	255	81	369.3	369.3	300.5	369.4	0.02
26	142	14165	-56.7	-67.7	24	11.0	-56.9	257	69	378.3	378.3	302.0	378.4	0.03
27	123	15072	-57.3	-69.3	20	12.0	-57.6	256	43	393.0	393.0	304.2	393.2	0.03
28	108	15884	-62.1	-73.1	22	11.0	-62.3	255	54	398.9	398.9	305.0	399.0	0.02
29	100	16360	-60.7	-71.7	22	11.0	-60.9	265	46	410.4	410.5	306.6	410.6	0.02
30	96	16614	-60.9	-71.9	22	11.0	-61.1	266	40	414.9	414.9	307.1	415.0	0.02
31	90	17012	-63.1	-73.1	25	10.0	-63.3	268	35	418.2	418.2	307.5	418.3	0.02
32	70	18570	-59.5	-69.5	26	10.0	-59.8	265	7	457.1	457.1	311.5	457.4	0.05
33	65	19036	-58.7	-68.7	26	10.0	-59.1	253	6	468.6	468.6	312.5	469.0	0.06
34	58	19747	-61.9	-71.9	25	10.0	-62.2	234	5	476.9	476.9	313.2	477.2	0.04
35	53	20312	-57.5	-67.5	27	10.0	-58.0	220	5	499.6	499.6	314.9	500.1	0.08
36	50	20680	-57.9	-68.9	23	11.0	-58.5	210	4	507.0	507.1	315.5	507.5	0.07
37	46	21203	-58.5	-69.5	23	11.0	-59.1	149	7	517.8	517.8	316.2	518.3	0.07
38	39	22250	-53.7	-63.7	28	10.0	-54.7	106	7	555.0	555.1	318.5	556.3	0.19
39	30	23930	-54.3	-65.3	25	11.0	-55.6	55	4	596.6	596.7	320.5	598.1	0.20
40	25	25102	-54.5	-64.5	28	10.0	-55.9	352	5	628.0	628.1	321.9	630.0	0.26
41	23	25640	-51.9	-61.9	29	10.0	-53.8	323	6	650.8	650.9	322.9	654.0	0.40
42	20	26550	-50.9	-60.9	30	10.0	-53.1	275	7	680.4	680.6	323.9	684.8	0.53
43	12	29916	-45.5	-58.5	22	13.0	-50.5	48	10	806.5	807.1	327.7	818.4	1.19
TRP	160	13418	-61.1	-72.1	22	11.0	-61.2	250	80	358.1	358.1	298.4	358.2	0.01
WND	276	9935	-45.6	-53.8	39	8.2	-45.9	250	103	328.9	328.9	291.5	329.3	0.09

Sounding variables and indices

1000-500 mb thick: 5614.00 m
 Freezing level: 687.83 mb = 3215.07 m = 10548.01 ft
 Wetbulb zero: 691.18 mb = 3174.48 m = 10414.83 ft
 Precipitable water: 1.18 inches
 Sfc-500 mean rel hum: 83.01 %
 Est. max temperature: 25.47 C = 77.84 F
 Sfc-Lift cond lev (LCL): 942.16 mb = 596.46 m = 1956.86 ft T: 17.62 C
 700-500 lapse rate: 5.98 C/km
 ThetaE index: 13.15 C Layer 925.0- 850.0 mb
 Svc cond level (CCL): 820.12 mb = 1767.93 m = 5800.22 ft
 Mean mixing ratio: 10.29 g/kg
 Conv temperature: 25.53 C = 77.95 F
 Cap Strength: 2.80 C
 Lifted Index: -1.71 C Risk: Thunderstorms probable
 Lifted Index @300 mb: 1.94 C
 Lifted Index @700 mb: -2.01 C
 Showalter Index: 2.21 C Risk: Showers probable
 Total Totals Index: 47.60 C Risk: Scattered moderate thunderstorms
 Vertical Totals Index: 28.30 C
 Cross Totals Index: 19.30 C
 K Index: 32.20 Risk: 60-80 % chance of thunderstorms
 Sweat Index: 124.20 Risk: None
 Energy Index: 0.58 Risk: None

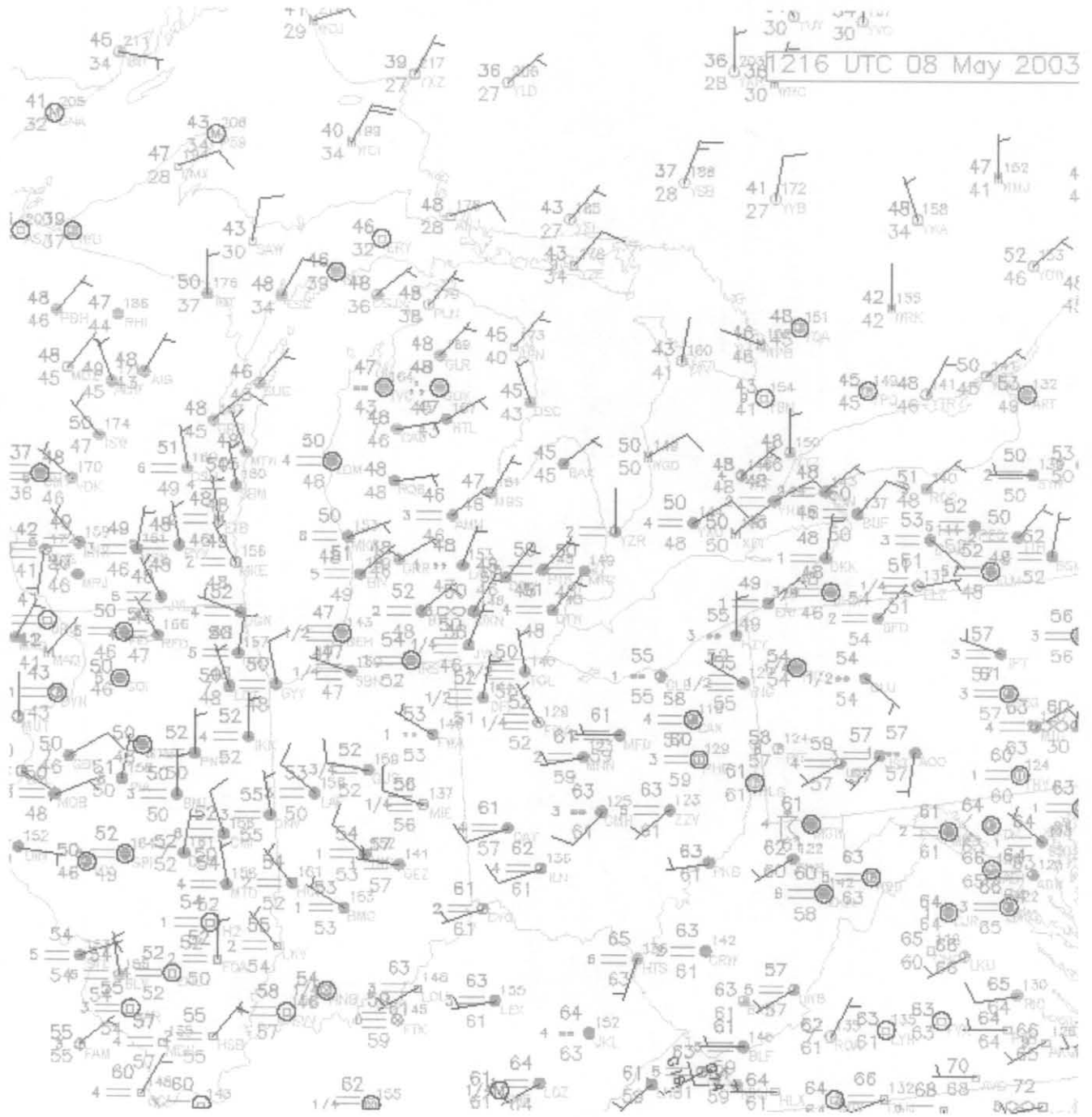
Parcel Indices

Parcel: using 100 mb layer

CAPE (B+): 377.25 J/kg
 Max Up Vert Vel: 27.47 m/s
 Conv Inhibition (B-): 70.90 J/kg
 Cap Strength: 2.80 C
 Lift Cond Lev (LCL): 874.06 mb = 1236.90 m = 4058.01 ft
 Lev Free Conv (LFC): 759.06 mb = 2405.53 m = 7892.07 ft
 Equ Level (EL): 359.06 mb = 8121.55 m = 26645.18 ft
 B at Equ Level: 375.50 J/kg
 Max Parcel Lev (MPL): 219.06 mb = 11441.23 m = 37536.39 ft

Wind Parameters

Mean winds (0-6000m): 256.1 at 27.0 knts
 Storm direction: 286.1 at 20.2 knts
 Shear (0-3000m) pos: 3.0 neg: 1.7 tot: 4.7 10⁻³/s
 Storm rel Dir Shear (0-3000m): 74.2 deg
 Storm rel helicity (0-3000m) pos: 131.8 neg: -23.1 tot: 108.7 m²/s²
 ave: 36.2 10⁻³ m/s² rel: 0.39
 Storm rel vorticity (0-3000m) horiz: 9.0 stream: 3.5 10⁻³/s
 Energy-Hel index: 0.28
 Bulk Rich Number: 7.40
 Bulk Shear: 51.01 m/s



Observer
Dr. Dave Walker

2-10-03

Wet
Storage



Weather Monitoring Log

	SKY CONDITIONS	CURRENT WEATHER	GROUND-LEVEL TEMPERATURE	ABOVE-GROUND TEMPERATURE	WIND SPEEDS	WIND DIRECTION	INVERSION PRESENT?
6:00 am							
6:15 am							
6:30 am							
6:45 am	CLOUDY	Lt. SNOW	29	29	0	0	NONE
7:00 am	CLOUDY	Lt. SNOW	28	26	0	0	"
7:15 am	CLOUDY	Lt. SNOW	27	26	0	0	"
7:30 am	CLOUDY	Lt. SNOW	27	26	SW	1	"
7:45 am	CLOUDY	Lt. SNOW	27	26	SW	φ	"
8:00 am	CLOUDY	Lt. SNOW	27	26	SW	1	"
8:15 am	CLOUDY	Lt. SNOW	28	26	WSW	2	"
8:30 am	CLOUDY	Lt. SNOW	29	27	SW	1	"
8:45 am	CLOUDY	Lt. SNOW	29	27	SW	1	"
9:00 am							
9:15 am							
9:30 am							
9:45 am							
10:00 am							

	YES	NO
AIR POLLUTION ALERT?		✓
AIR STAGNATION ADVISORIES?		✓
OZONE ACTION ADVISORIES?		✓
SAND/SNOW/ELECTRICAL STORMS?		✓

Weather Forecast

Mostly cloudy skies with periods of light snow.
Winds blowing from the South and SouthWest at 5 to 10 mph
in the morning, shifting in direction with the cold front
around noon then winds blowing from the West at 10-15 mph.
Morning low temperature near 20. Afternoon high temperature near 30.

UPPER AIR CALCULATIONS AND PLOTTING (Ver 5.026B-LINUX-X11)

Current filename: /noaaport/nwstg/convert/03021000_upa.wxp

Date: 0000Z 10 FEB 03

Searching for KPIT...

Searching the city database file for: KPIT ...

Date: 0000Z 10 FEB 03

Station: KPIT

WMO ident: 72520

Latitude: 40.50

Longitude: -80.22

Elevation: 373.00

LEV	PRES	HGHT	TEMP	DEWP	RH	DD	WETB	DIR	SPD	THETA	THE-V	THE-W	THE-E	W
	mb	m	C	C	%	C	C	deg	knt	K	K	K	K	g/kg
0	1000	149												
SFC	974	373	-1.5	-6.5	69	5.0	-3.2	210	6	273.7	274.1	271.4	280.4	2.41
2	968	420	-1.7	-9.7	54	8.0	-4.2	214	9	274.0	274.3	270.7	279.3	1.89
3	925	766	-4.9	-8.0	79	3.1	-5.9	230	20	274.3	274.7	271.5	280.6	2.26
4	850	1424	-10.5	-11.7	91	1.2	-10.8	240	28	275.1	275.5	271.3	280.3	1.83
5	784	2040	-15.3	-16.6	90	1.3	-15.6	260	35	276.4	276.7	271.3	280.3	1.33
6	775	2128	-14.9	-17.4	81	2.5	-15.4	265	36	277.8	278.0	272.0	281.4	1.26
7	769	2187	-14.1	-25.1	39	11.0	-16.1	267	37	279.3	279.4	271.9	281.2	0.65
8	755	2326	-13.1	-24.1	39	11.0	-15.2	271	41	281.8	281.9	273.5	284.0	0.72
9	700	2900	-15.7	-25.7	42	10.0	-17.5	275	44	285.1	285.2	275.2	287.2	0.67
10	633	3651	-21.1	-27.1	58	6.0	-22.1	265	46	287.3	287.4	276.3	289.3	0.66
11	615	3864	-21.7	-26.3	66	4.6	-22.5	265	50	289.0	289.1	277.3	291.2	0.73
12	596	4096	-20.3	-32.3	33	12.0	-22.0	265	55	293.2	293.3	278.9	294.6	0.43
13	589	4183	-20.5	-29.5	44	9.0	-21.9	265	57	293.9	294.0	279.4	295.8	0.56
14	520	5097	-25.5	-36.5	35	11.0	-26.8	265	67	298.6	298.6	281.2	299.7	0.32
15	500	5380	-27.7	-36.7	42	9.0	-28.7	265	70	299.3	299.3	281.5	300.4	0.33
16	472	5793	-29.9	-34.1	67	4.2	-30.4	262	76	301.5	301.6	282.6	303.0	0.45
17	400	6950	-39.5	-43.8	64	4.3	-39.8	260	86	303.7	303.7	283.1	304.3	0.20
18	300	8850	-54.1	-58.8	56	4.7	-54.2	260	121	309.1	309.1	285.0	309.3	0.05
19	289	9091	-50.9	-56.9	49	6.0	-51.1	264	128	317.0	317.0	287.8	317.2	0.06
20	271	9508	-51.5	-58.4	44	6.9	-51.7	265	132	322.0	322.0	289.4	322.2	0.05
21	250	10030	-52.3	-60.3	38	8.0	-52.5	265	131	328.3	328.3	291.3	328.5	0.05
22	246	10135	-52.3	-61.3	33	9.0	-52.5	265	130	329.8	329.8	291.7	330.0	0.04
23	200	11490	-49.7	-61.7	23	12.0	-50.1	265	116	354.1	354.1	297.5	354.3	0.05
24	196	11622	-49.1	-61.1	23	12.0	-49.5	265	115	357.1	357.1	298.2	357.3	0.05
25	150	13360	-51.7	-64.7	20	13.0	-52.1	265	103	381.0	381.0	302.5	381.2	0.04
26	124	14579	-57.3	-69.3	20	12.0	-57.6	265	94	392.1	392.1	304.1	392.3	0.03
27	109	15395	-56.7	-68.7	21	12.0	-57.1	265	88	408.0	408.0	306.3	408.2	0.03
28	103	15753	-57.9	-69.9	20	12.0	-58.2	265	85	412.4	412.4	306.8	412.5	0.03
29	100	15940	-57.3	-69.3	20	12.0	-57.6	265	84	417.0	417.0	307.4	417.2	0.03
30	96	16198	-57.9	-69.9	20	12.0	-58.2	265	82	420.7	420.7	307.8	420.9	0.03
31	70	18190	-58.3	-70.3	20	12.0	-58.7	265	67	459.7	459.7	311.8	459.9	0.04
32	50	20300	-58.7	-70.7	20	12.0	-59.2	265	51	505.2	505.2	315.4	505.5	0.06
33	41	21539	-61.9	-72.9	22	11.0	-62.3	265	42	526.7	526.7	316.8	527.0	0.05
34	37	22180	-58.5	-70.5	20	12.0	-59.2	264	36	551.1	551.1	318.2	551.6	0.08
35	33	22897	-60.5	-72.5	19	12.0	-61.2	262	29	564.1	564.1	318.9	564.6	0.06
36	31	23291	-56.1	-69.1	18	13.0	-57.2	261	25	586.2	586.2	320.0	587.0	0.11
37	30	23500	-55.9	-68.9	18	13.0	-57.1	260	23	592.2	592.3	320.3	593.1	0.12
38	24	24908	-60.1	-72.1	19	12.0	-61.0	268	22	619.1	619.1	321.5	619.8	0.09
39	20	26050	-59.1	-71.1	20	12.0	-60.3	270	16	655.3	655.3	322.9	656.3	0.13
40	15	27856	-58.5	-70.5	20	12.0	-60.1	262	31	713.5	713.5	324.9	715.1	0.19
TRP	300	8850	-54.1	-58.8	56	4.7	-54.2	260	121	309.1	309.1	285.0	309.3	0.05
WND	271	9508	-51.5	-58.4	44	6.9	-51.7	265	132	322.0	322.0	289.4	322.2	0.05

Sounding variables and indices

1000-500 mb thick: 5231.00 m

Freezing level: Surface below freezing

Wetbulb zero: Below ground
 Precipitable water: 0.24 inches
 Sfc-500 mean rel hum: 57.67 %
 Est. max temperature: 0.43 C = 32.78 F
 Sfc-Lift cond lev (LCL): 900.52 mb = 974.74 m = 3197.91 ft T: -6.68 C
 700-500 lapse rate: 4.84 C/km
 ThetaE index: 1.09 C Layer 968.0- 925.0 mb
 Conv cond level (CCL): 857.47 mb = 1355.91 m = 4448.46 ft
 Mean mixing ratio: 2.10 g/kg
 Conv temperature: -0.15 C = 31.73 F
 Cap Strength: 15.79 C
 Lifted Index: 16.05 C Risk: None
 Lifted Index @300 mb: 20.47 C
 Lifted Index @700 mb: 6.81 C
 Showalter Index: 15.99 C Risk: None
 Total Totals Index: 33.20 C Risk: None
 Vertical Totals Index: 17.20 C
 Cross Totals Index: 16.00 C
 K Index: -4.50 Risk: None
 Sweat Index: 203.83 Risk: None
 Energy Index: 4.20 Risk: None

Parcel Indices

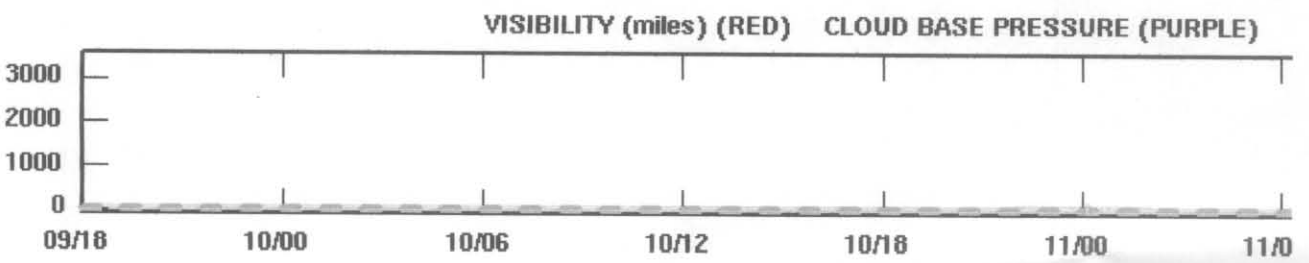
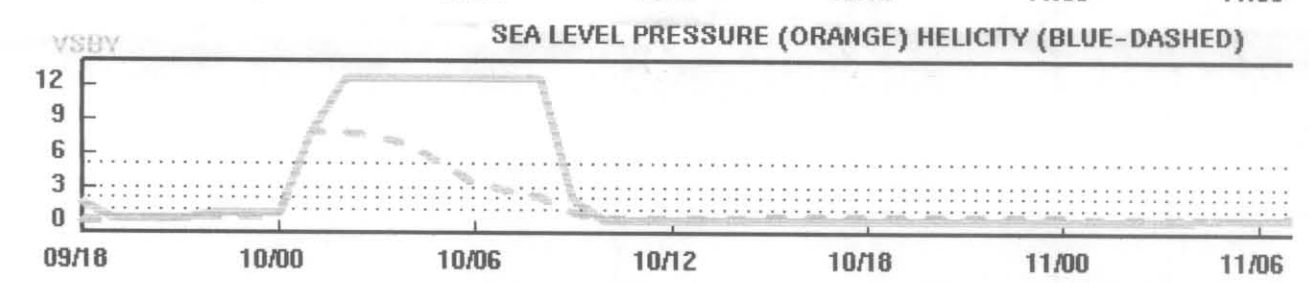
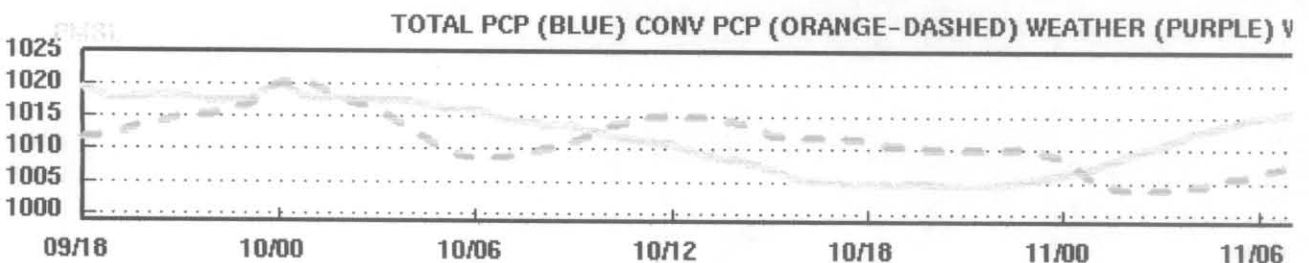
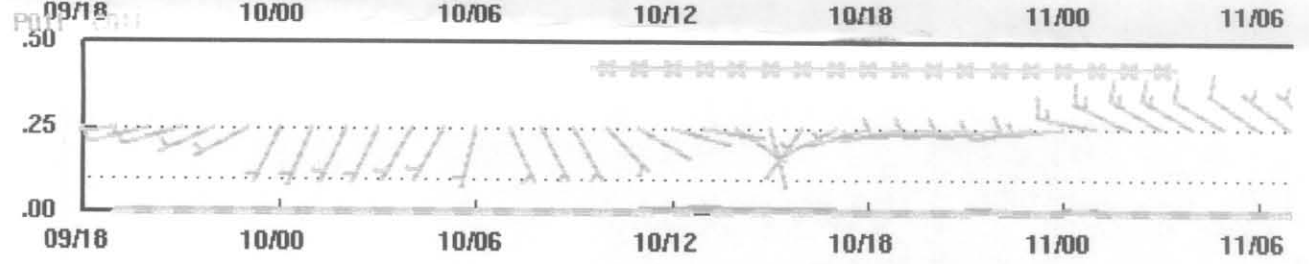
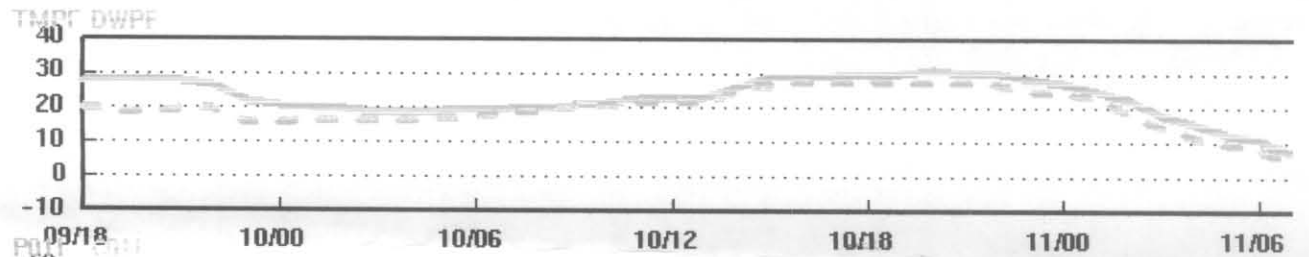
Parcel: using 100 mb layer

CAPE (B+): 3.56 J/kg
 Max Up Vert Vel: 2.67 m/s
 Conv Inhibition (B-): 61263.88 J/kg
 Cap Strength: 15.96 C
 Lift Cond Lev (LCL): 866.53 mb = 1274.12 m = 4180.14 ft
 Lev Free Conv (LFC): -1.00 mb = -9999.00 m = -9999.00 ft

Wind Parameters

Mean winds (0-6000m): 262.3 at 48.9 knts
 Storm direction: 292.3 at 36.7 knts
 Shear (0-3000m) pos: 7.2 neg: 0.9 tot: 8.0 10⁻³/s
 Storm rel Dir Shear (0-3000m): 95.4 deg
 Storm rel helicity (0-3000m) pos: 312.4 neg: -9.0 tot: 303.4 m²/s²
 ave: 101.1 10⁻³ m/s² rel: 0.74
 Storm rel vorticity (0-3000m) horiz: 9.6 stream: 7.1 10⁻³/s
 Energy-Hel index: 0.01
 Bulk Rich Number: 0.02
 Bulk Shear: 174.12 m/s

725250 ETA 12 KM 60 LYR FCST 2-M TEMP (RED) DEWPOINT (GREEN)



725250 YOUNGSTOWN MUNI OH ETA CAPE (BROWN) CINS (BLUE-DASH)