



Attachment 1

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SOUNDING # 1 IDN= 74494 DAY=1999304 TIME= 0 VALID LEVELS= 53

Idn	Id	Station Name	St	Co	Lat	Lon	Elev
744940	KCHH	CHATHAM	MA	US	41:40N	069:58W	16

Level Type	Pressure [MB]	Temp [C]	Dew Point [C]	Dir [deg]	Speed [KTS]	Height [M]	Theta [K]	Mix [g/kg]
SFC	1030.0	11.6	5.6	170.0	8.0	16.0	282.4	5.542
SIGT	1012.0	12.4	6.4	170.0	10.5	163.8	284.6	5.965
SIGT	1002.0	13.0	-6.0	170.0	11.9	247.2	286.0	2.434
SIGW	995.2	12.5	-.7	170.0	12.8	304.0	286.1	3.648
SIGT	988.0	12.0	5.0	174.0	12.6	365.3	286.1	5.541
SIGT	971.0	10.8	7.9	183.5	12.2	510.5	286.4	6.901
SIGT	965.0	10.4	6.4	186.9	12.0	562.3	286.5	6.259
SIGT	961.0	10.6	.6	189.2	11.9	596.9	287.0	4.158
SIGW	959.6	10.7	.7	190.0	11.8	609.0	287.2	4.183
SIGT	952.0	11.0	1.0	195.4	11.4	675.4	288.2	4.322
SIGW	925.2	11.4	-2.6	215.0	9.9	914.0	291.0	3.418
MAND	925.0	11.4	-2.6	215.0	9.9	915.7	291.0	3.413
SIGW	892.0	10.8	-.6	250.0	9.9	1219.0	293.4	4.099
MAND	850.0	10.0	2.0	275.0	8.9	1620.8	296.6	5.208
SIGW	828.9	8.3	.9	285.0	8.9	1829.0	297.0	4.915
SIGT	810.0	6.8	-.2	294.4	10.1	2019.6	297.4	4.659
SIGW	798.8	6.2	-2.5	300.0	10.9	2134.0	297.9	3.983
SIGT	784.0	5.4	-5.6	307.5	11.4	2287.2	298.6	3.212
SIGT	779.0	5.6	-11.4	310.1	11.5	2339.5	299.4	2.051
SIGW	769.5	5.1	-12.5	315.0	11.8	2439.0	300.0	1.893
SIGW	741.2	3.7	-16.0	320.0	14.0	2743.0	301.7	1.473
MAND	700.0	1.6	-21.4	295.0	16.9	3207.4	304.3	.987
SIGT	665.0	-1.1	-20.1	281.3	19.6	3618.6	305.7	1.164
SIGW	661.7	-1.5	-16.9	280.0	19.8	3658.0	305.7	1.530
SIGT	653.0	-2.5	-8.5	278.3	20.9	3763.6	305.7	3.082
SIGT	637.0	-4.3	-8.1	275.0	22.9	3960.1	305.9	3.261
SIGW	636.8	-4.3	-8.1	275.0	22.9	3963.0	305.9	3.258
SIGT	621.0	-5.9	-9.3	275.0	22.9	4160.2	306.3	3.044
SIGW	612.5	-6.5	-15.7	275.0	22.9	4268.0	306.8	1.836
SIGT	607.0	-6.9	-19.9	274.4	23.4	4338.7	307.1	1.298
SIGW	566.0	-11.4	-19.3	270.0	26.8	4878.0	308.1	1.471
SIGT	544.0	-13.9	-18.9	273.2	28.8	5183.1	308.6	1.578
SIGT	540.0	-13.7	-24.7	273.8	29.1	5239.2	309.5	.956
MAND	500.0	-17.3	-34.3	280.0	32.8	5820.5	312.0	.419
SIGW	481.8	-19.5	-35.4	280.0	31.9	6097.0	312.6	.391
SIGT	467.0	-21.3	-36.3	279.1	33.7	6328.4	313.1	.368
SIGT	445.0	-23.1	-32.1	277.8	36.6	6683.4	315.2	.583
SIGT	434.0	-24.5	-28.2	277.2	38.1	6866.3	315.7	.864
SIGT	426.0	-25.7	-31.7	276.7	39.2	7001.6	315.9	.633
MAND	400.0	-29.9	-33.4	275.0	42.9	7454.5	316.1	.572
SIGW	390.7	-31.6	-34.6	275.0	43.9	7621.0	316.1	.523
SIGT	388.0	-32.1	-34.9	275.5	44.3	7670.7	316.0	.509
SIGT	379.0	-32.7	-42.7	277.1	45.4	7836.3	317.4	.233
SIGT	364.0	-33.5	-47.5	279.9	47.5	8120.4	320.0	.143
SIGT	343.0	-37.1	-50.1	284.0	50.4	8534.5	320.6	.117
SIGW	313.7	-40.4	-59.4	290.0	54.8	9146.0	324.2	.048
SIGW	300.0	-42.1	-64.1	300.0	58.9	9451.0	326.0	-----
MAND	300.0	-42.1	-64.1	300.0	58.9	9451.2	326.0	-----
MAND	250.0	-51.7	-65.7	295.0	52.8	10659.9	329.2	-----
SIGW	227.1	-52.8	-68.1	290.0	51.9	11280.0	336.7	-----
MAND	200.0	-54.3	-71.3	300.0	42.0	12099.3	346.8	-----
SIGW	197.0	-54.7	-71.9	305.0	39.8	12195.0	347.6	-----
MAND	150.0	-62.3	-82.3	285.0	36.9	13910.4	362.8	-----

Parcel Definition for 100 mb Boundary Layer: 0000 UTC 31 Oct 1999304

Dewpoint Temperature (TD) = 2.7 C
Potential Temperature (Th) = 286.5 K
Equivalent Potential Temperature (ThE) = 298.9 K
Mixing Ratio (MIX) = 4.7 g/kg

Stability Indices and Levels:

Lifted Condensation Level (LCL) = 856 mb
Temperature at LCL (TLCL) = 0.8 C
Level of Free Convection (LFC) = -----
Equilibrium Level (EL) = -----
Convective Temperature (CVT) = -----
Forecast Maximum Temperature (FMAX) = 21.8 C

K Index (KI) = 6.3
Lifted Index (LI) = 12.3
Severe WEATHER Threat Index (SwI) = 74.7
Showalter Index (ShI) = 4.4
Total Totals Index (TTI) = 46.6

Precipitable Water (PW) = 15.7 mm

Energy Analysis:

Helicity (HELI) = -20 m**2/s**2
Convective Available Potential Energy (CAPE) = -----
Convective Inhibition (CIN) = -----

Theta-E for Forecast Maximum Temperature = 305 K
CAPE for Forecast Maximum Temperature = -----

Maximum Theta-E at or below 300 mb = 326 K
Pressure Level of Maximum Theta-E = 300 mb
CAPE for Maximum Theta-E = -----

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UALIST: Done