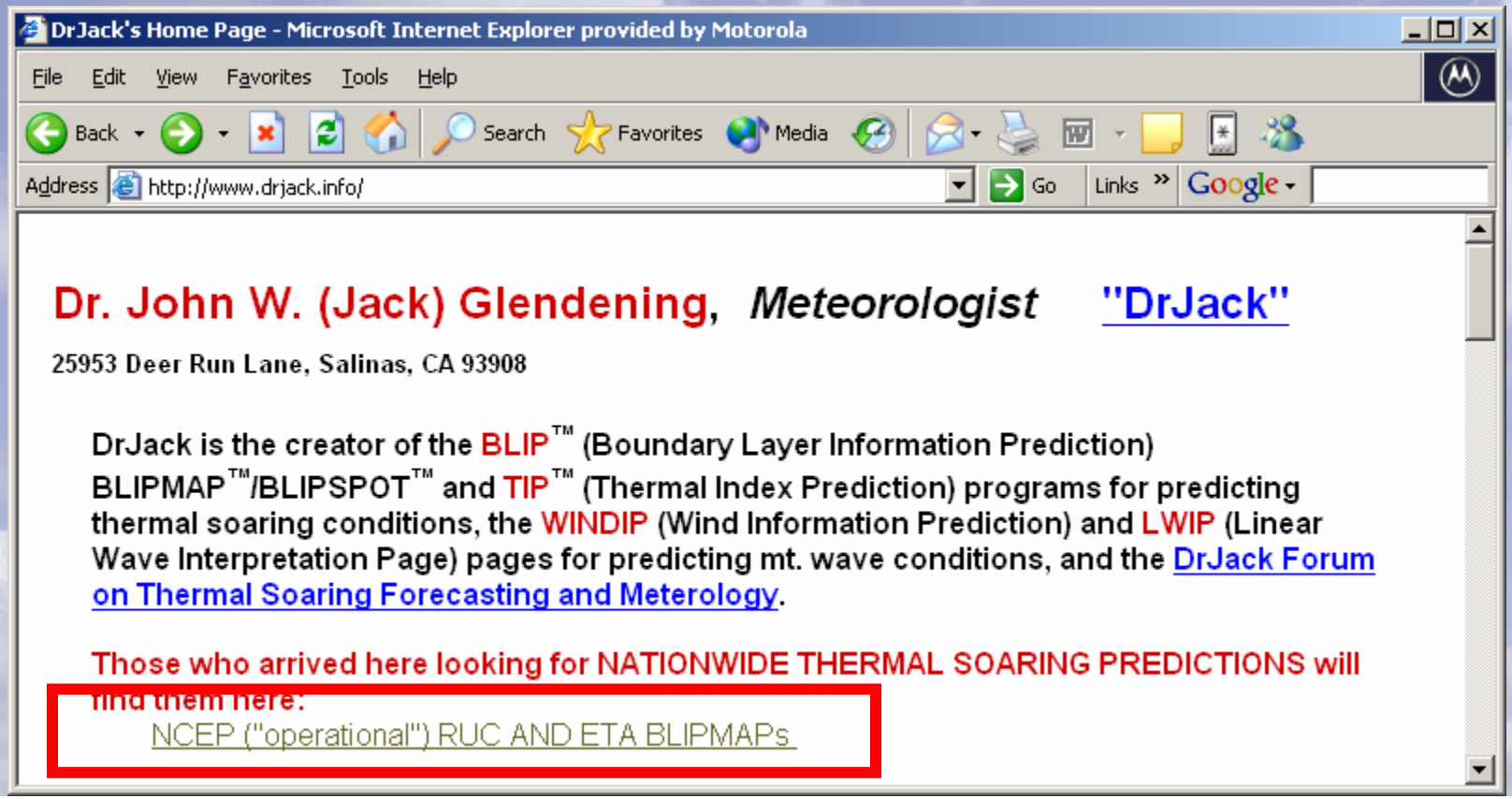
BLIP MAPS

What They Are
What They Do

ChicagoLand Glider Council
October 12, 2004

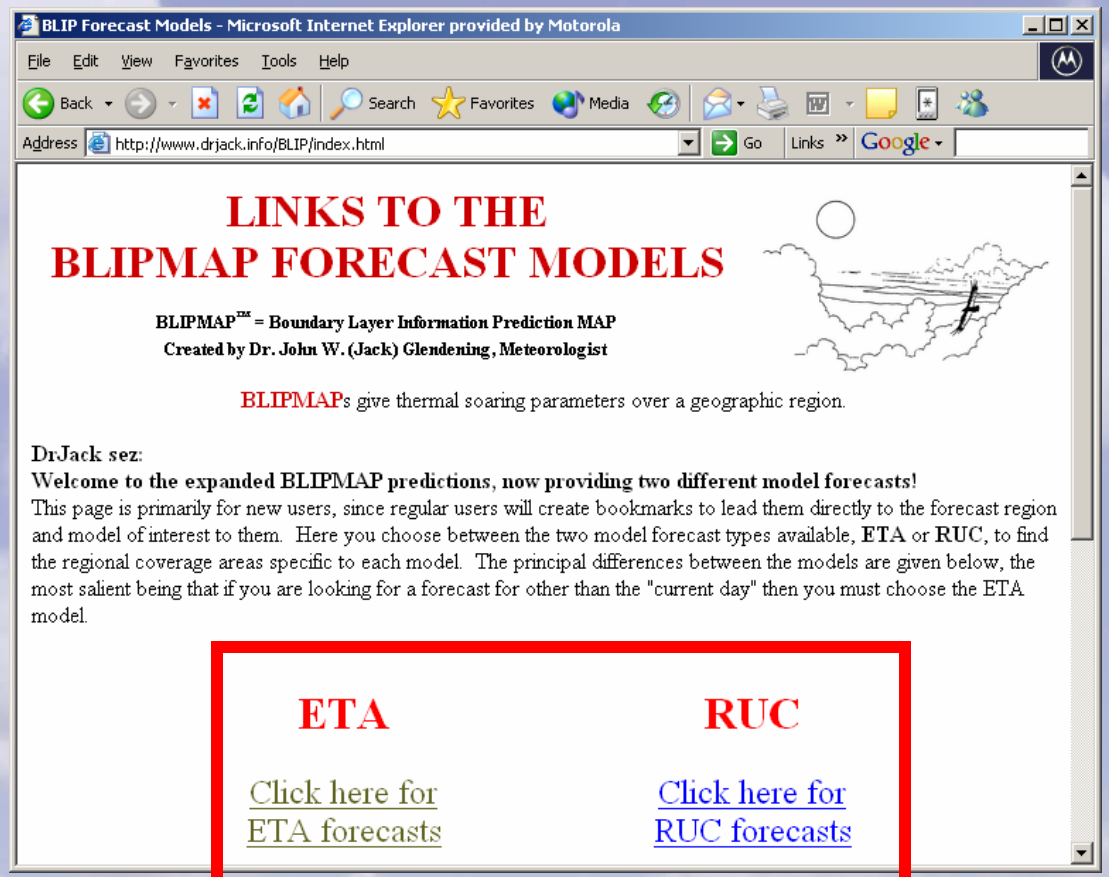
How to Get There

- http://drjack.net or http://drjack.info
  - (not dot-com)
  - Click on “RUC AND ETA BLIPMAPs”



How to Get There

- Click on type of blip map wanted
  - RUA or ETA



ETA Model Features

Forecasts out to 84 hours

Available only for two hours each day

Updated at 6 hr intervals

12 km grid resolution

RUC Model Features

Forecasts out to 12 hours

Available for five hours through day

Updated at 3 hr intervals

20 km grid resolution

Numerous model differences of detail, such as their parameterization of clouds, may lead to one model providing better forecasts of certain soaring parameters for your location, but that can only be determined through actual flight experience.

A more detailed description of differences between the two models is provided in the ETA vs RUC Model Comparison webpage

Q: "But I just want to know which model is best!"

A: Each model has different advantages and neither is always "best."

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Some people will say "but I only want to look at a single forecast", so what they can do is look at the RUC since that has some known history.

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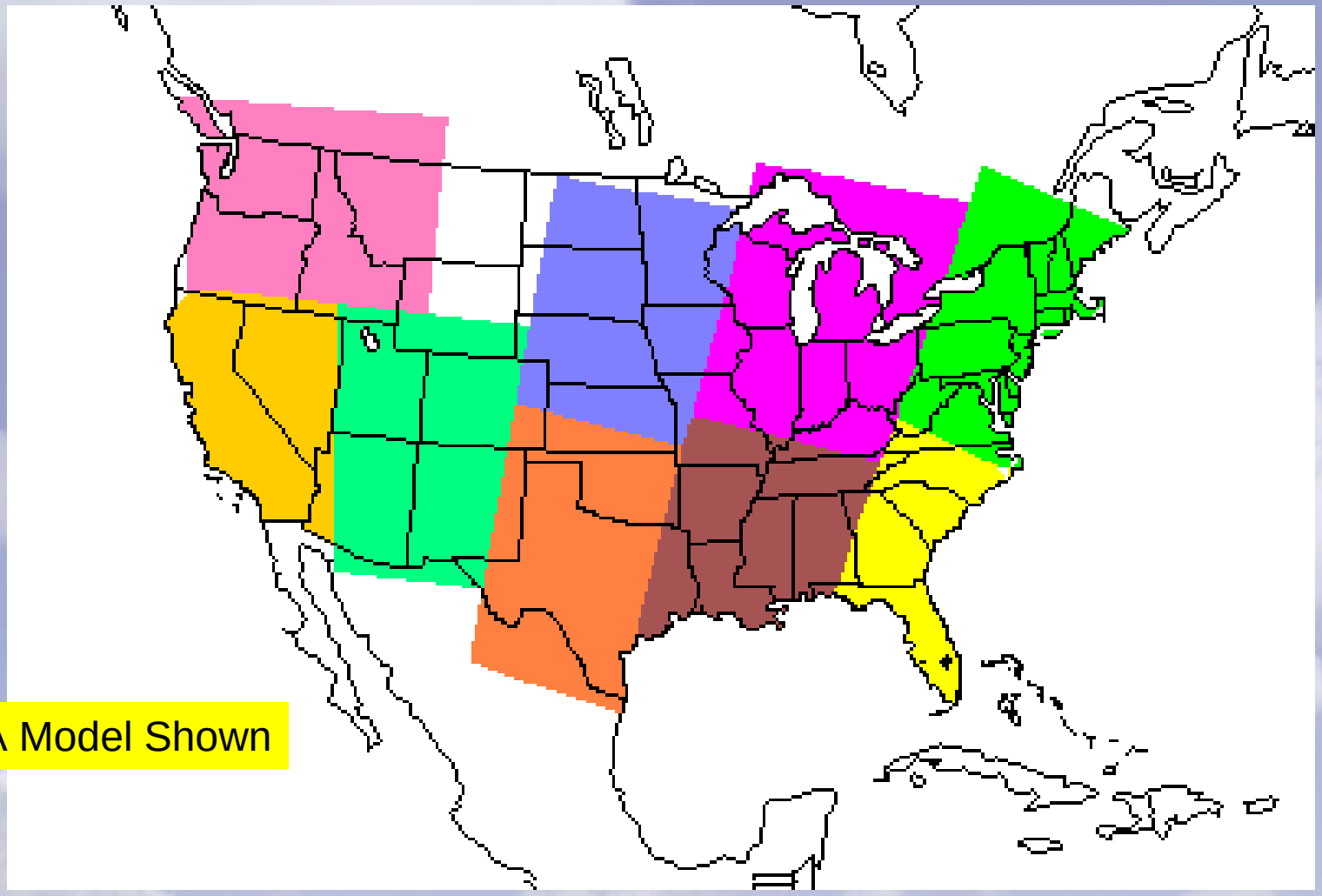
Those who are more interested in weather forecasting or are looking for day-before forecasts will use the ETA.

Choose Your Region



ETA Model Shown

Top of Regional Screen

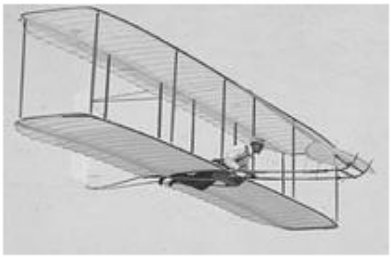
ETA BLIPMAP NC 18Z Forecasts - Microsoft Internet Explorer provided by Motorola

File Edit View Favorites Tools Help

Back Search Favorites Media

Address http://www.drjack.info/BLIP/ETA/NC/index.html Go Links Google

ETA BLIPMAP FORECASTS



BLIPMAP™ = Boundary Layer Information Prediction MAP

[The Boundary Layer (BL) is the region mixed by thermal eddies]

Created by Dr. John W. (Jack) Glendening, Meteorologist

BLIPMAPs give thermal soaring parameters over a geographic region.

ETA Model Shown

18Z NorthCentral Forecasts

12 km ETA RESULTS

Current time & day: 18Z (18h) TUE Oct 12

The "current day" changes shortly after 2Z
Time="---" if none yet available for current day

ETA BLIPMAPs can also be viewed using the regional viewer OR the UniViewer OR in alternate display formats using BLIP data display software

For additional on-line information: BLIPMAP HELP page

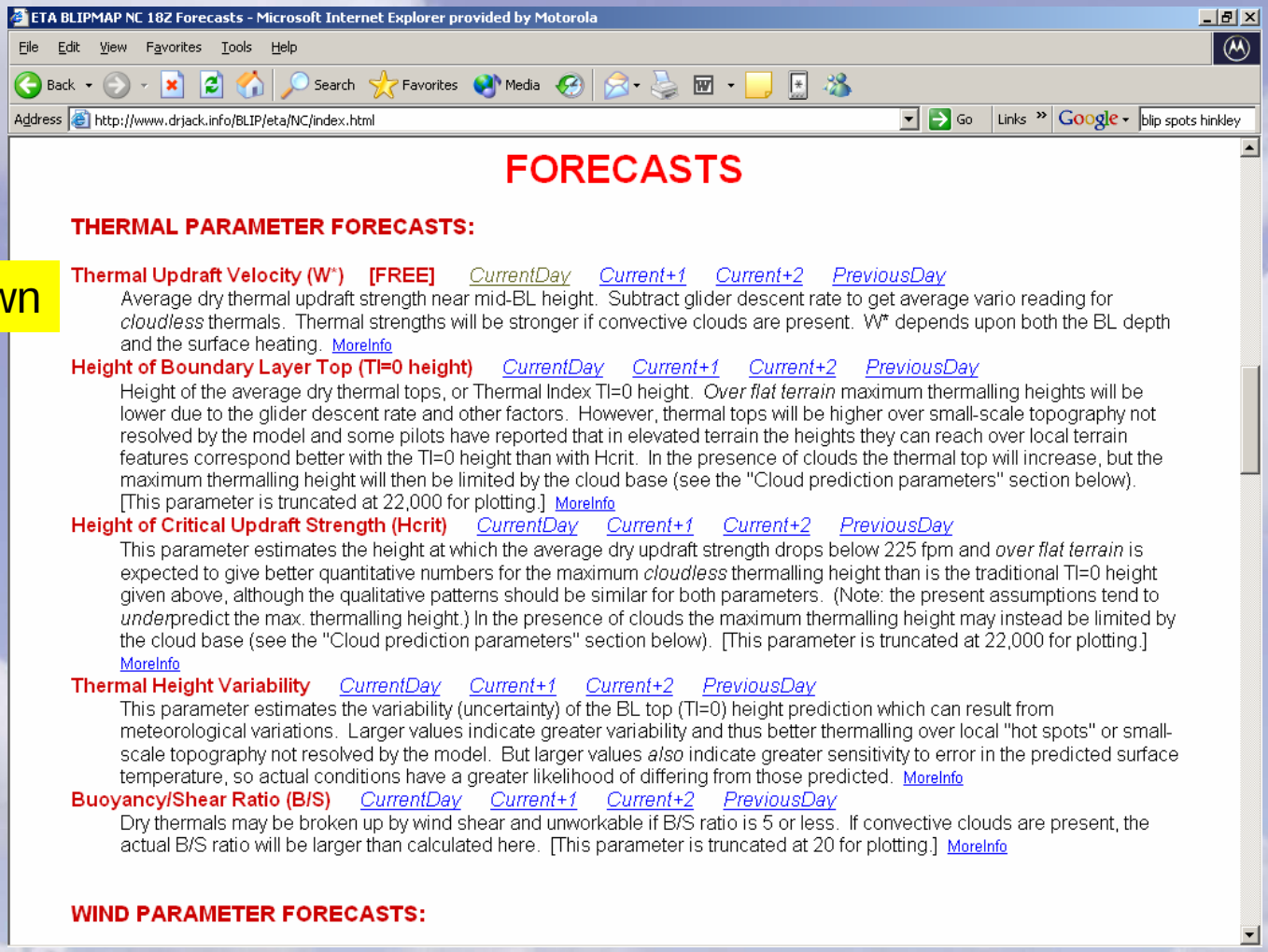
NEWS

Scroll Down

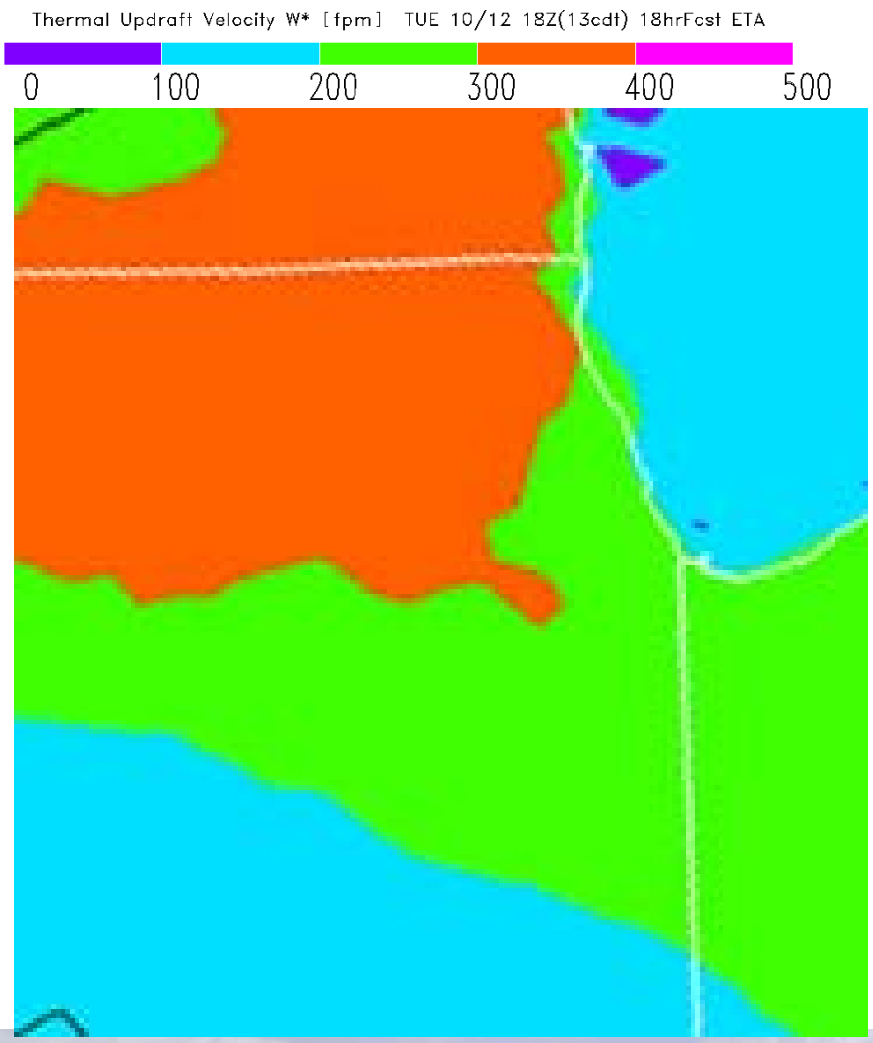
Blip Map Links

- 25 forecasts in 4 categories

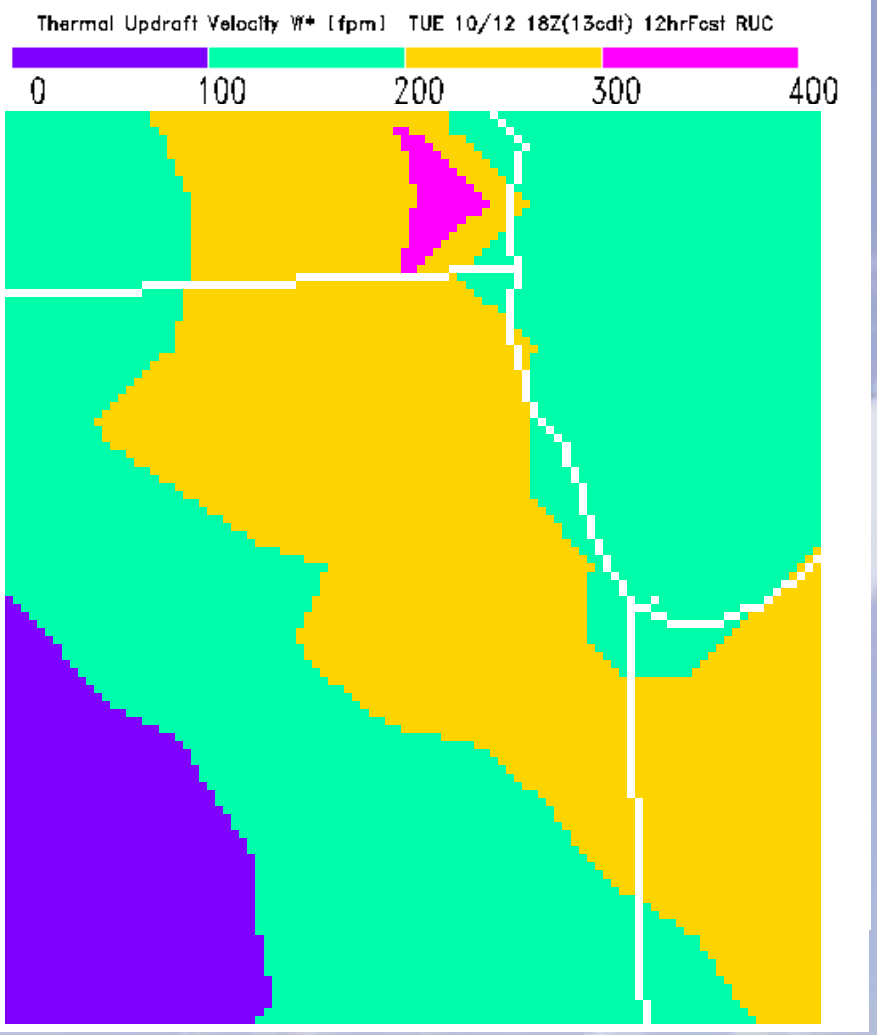
ETA Model Shown



ETA Model



RUC Model



Blip Spots

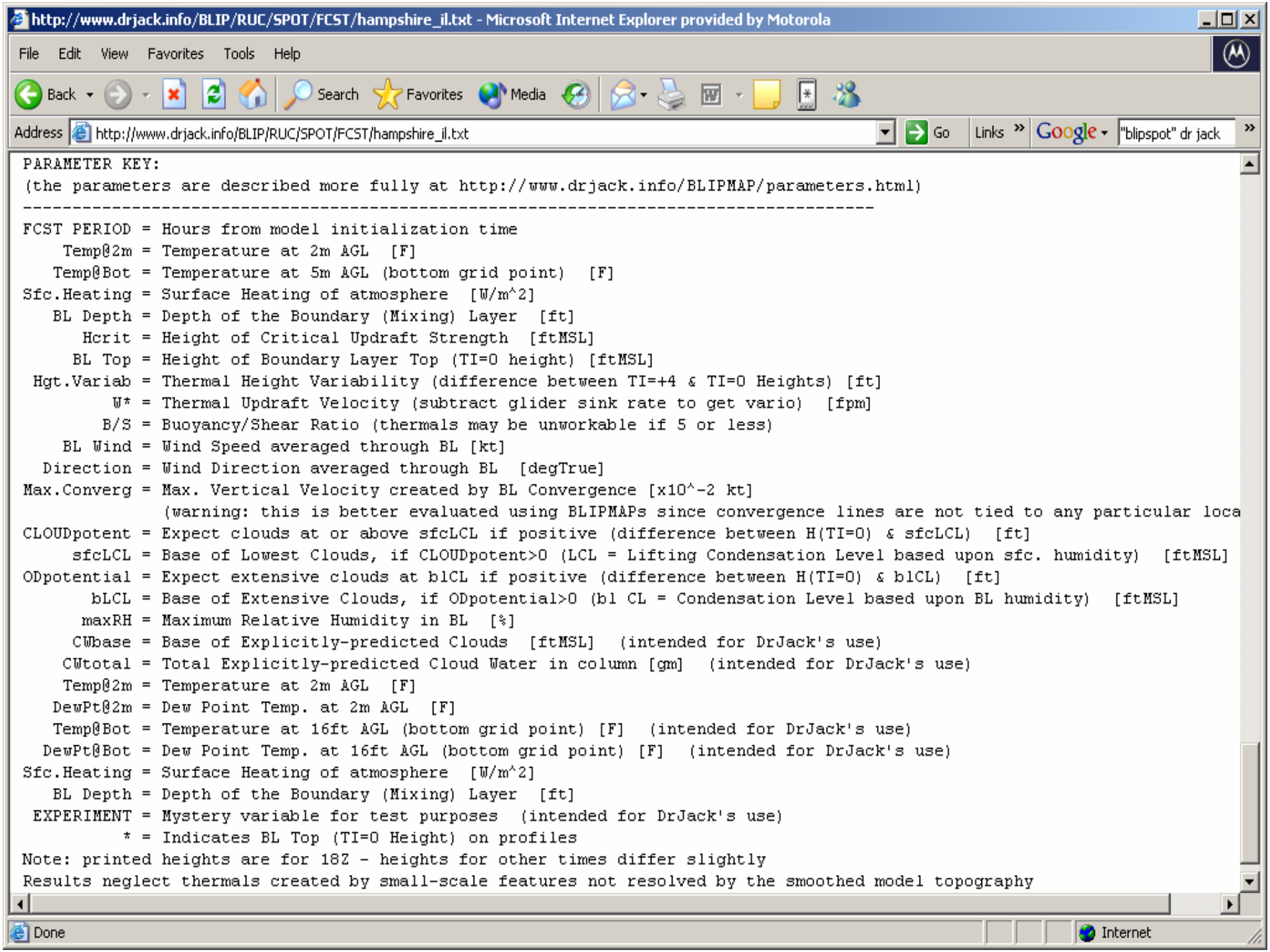
- Available for 64 US sites including;
  - Beloit
  - Freeport
  - Hampshire
  - Hinkley
  - Minooka
- Text based - Not as easy to visualize as Blip Maps
- RUC model only
- Specific to nearest city
- http://www.drjack.info/BLIP/RUC/SPOT/
  - Link at bottom of RUC regional map page

DrJack's BLIPSPOT for: TUE 10/12 Hampshire_IL 889ft pt37818@42.147,-88.420,844ft

BLIPSPOT sfc.temp. adjusted by +0.1 degF
SPONSORED BY: ChicagoLand Glider Council

RUC - Last Analysis,Validation Time = 09Z 15Z

	VALIDATION TIME												
	12Z	13Z	14Z	15Z	16Z	17Z	18Z	19Z	20Z	21Z	22Z	23Z	0Z
FCST PERIOD	6 hr	-	-	6 hr	-	-	6 hr	-	-	6 hr	-	-	9 hr	FCST PERIOD
Temp@2m	44.7	-	-	48.3	-	-	61.2	-	-	57.3	-	-	53.1	Temp@2m
Sfc.Heating	-7	-	-	26	-	-	214	-	-	28	-	-	-16	Sfc.Heating
BL Depth	16	-	-	174	-	-	2515	-	-	1600	-	-	16	BL Depth
Hcrit	241	-	-	889	-	-	2302	-	-	889	-	-	241	Hcrit
BL Top	257	-	-	1063	-	-	3404	-	-	2489	-	-	257	BL Top
Hgt.Variab.	920	-	-	1237	-	-	658	-	-	997	-	-	2451	Hgt.Variab.
W*	0	-	-	67	-	-	329	-	-	143	-	-	0	W*
B/S	0	-	-	1	-	-	4	-	-	2	-	-	0	B/S
BL Wind	6	-	-	9	-	-	14	-	-	13	-	-	7	BL Wind
Direction	048	-	-	067	-	-	103	-	-	100	-	-	074	Direction
Wind Shear	0	-	-	3	-	-	5	-	-	5	-	-	0	Wind Shear
Max.Converg	0	-	-	0	-	-	2	-	-	-5	-	-	2	Max.Converg
CLOUDpotent	-605	-	-	-383	-	-	-1765	-	-	-807	-	-	-1729	CLOUDpotentl
sfcLCL	862	-	-	1446	-	-	5169	-	-	3296	-	-	1986	sfcLCL
ODpotential	-12446	-	-	-11054	-	-	-10039	-	-	-8841	-	-	-9644	ODpotential
blCL	12703	-	-	12117	-	-	13443	-	-	11330	-	-	9901	blCL


http://www.drjack.info/BLIP/RUC/SPOT/FCST/hampshire_il.txt - Microsoft Internet Explorer provided by Motorola
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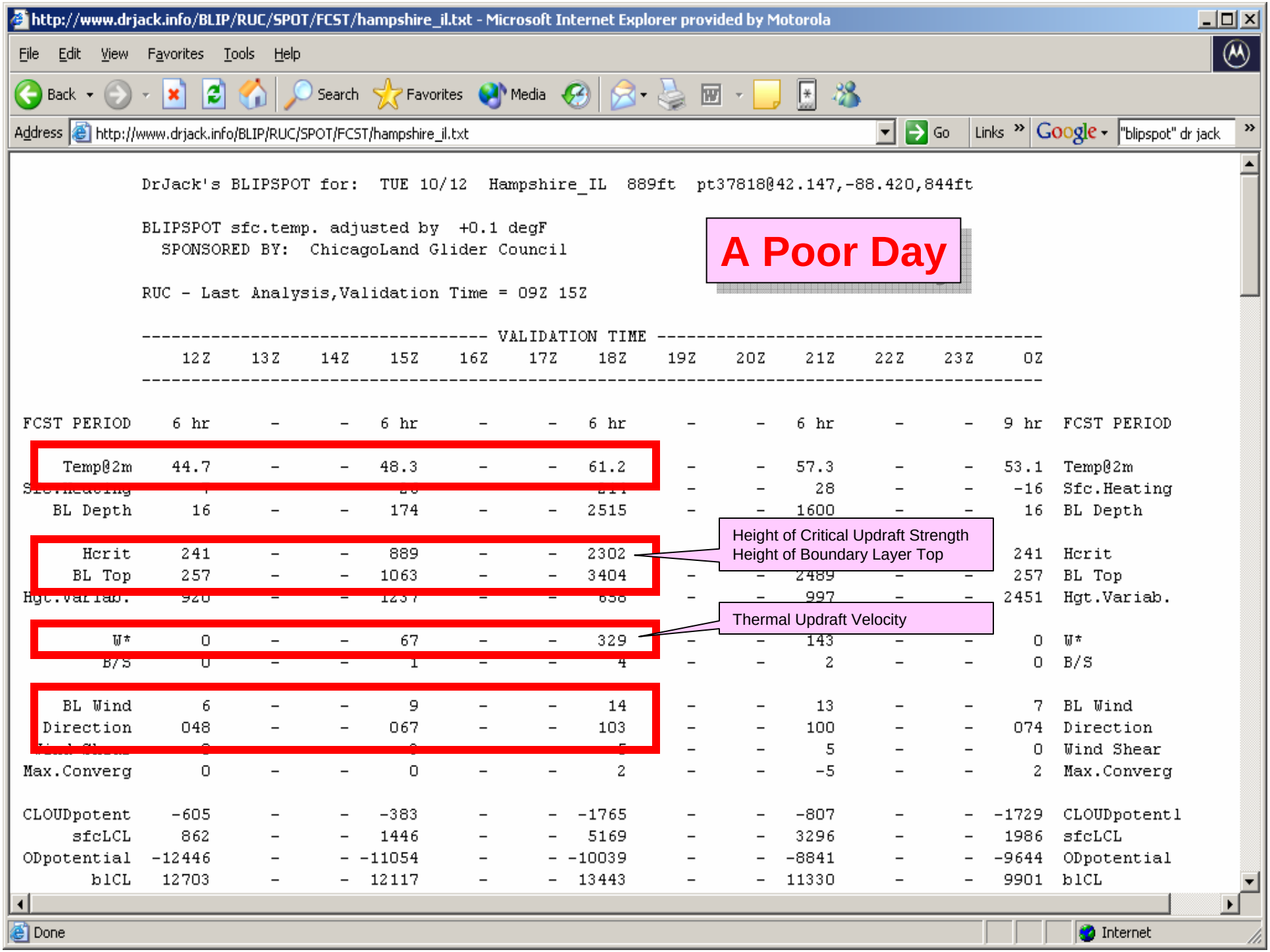
Address http://www.drjack.info/BLIP/RUC/SPOT/FCST/hampshire_il.txt
Go Links Google "blipspot" dr jack
PARAMETER KEY:
(the parameters are described more fully at http://www.drjack.info/BLIPMAP/parameters.html)
FCST PERIOD = Hours from model initialization time
Temp@2m = Temperature at 2m AGL [F]
Temp@Bot = Temperature at 5m AGL (bottom grid point) [F]
Sfc.Heating = Surface Heating of atmosphere [W/m^2]
BL Depth = Depth of the Boundary (Mixing) Layer [ft]
Hcrit = Height of Critical Updraft Strength [ftMSL]
BL Top = Height of Boundary Layer Top (TI=0 height) [ftMSL]
Hgt.Variab = Thermal Height Variability (difference between TI=+4 & TI=0 Heights) [ft]
W* = Thermal Updraft Velocity (subtract glider sink rate to get vario) [fpm]
B/S = Buoyancy/Shear Ratio (thermals may be unworkable if 5 or less)
BL Wind = Wind Speed averaged through BL [kt]
Direction = Wind Direction averaged through BL [degTrue]
Max.Converg = Max. Vertical Velocity created by BL Convergence [x10^-2 kt]
(warning: this is better evaluated using BLIPMAPs since convergence lines are not tied to any particular loca
CLOUDpotent = Expect clouds at or above sfcLCL if positive (difference between H(TI=0) & sfcLCL) [ft]
sfcLCL = Base of Lowest Clouds, if CLOUDpotent>0 (LCL = Lifting Condensation Level based upon sfc. humidity) [ftMSL]
ODpotential = Expect extensive clouds at blCL if positive (difference between H(TI=0) & blCL) [ft]
bLCL = Base of Extensive Clouds, if ODpotential>0 (bl CL = Condensation Level based upon BL humidity) [ftMSL]
maxRH = Maximum Relative Humidity in BL [%]
CWbase = Base of Explicitly-predicted Clouds [ftMSL] (intended for DrJack's use)
CWtotal = Total Explicitly-predicted Cloud Water in column [gm] (intended for DrJack's use)
Temp@2m = Temperature at 2m AGL [F]
DewPt@2m = Dew Point Temp. at 2m AGL [F]
Temp@Bot = Temperature at 16ft AGL (bottom grid point) [F] (intended for DrJack's use)
DewPt@Bot = Dew Point Temp. at 16ft AGL (bottom grid point) [F] (intended for DrJack's use)
Sfc.Heating = Surface Heating of atmosphere [W/m^2]
BL Depth = Depth of the Boundary (Mixing) Layer [ft]
EXPERIMENT = Mystery variable for test purposes (intended for DrJack's use)
* = Indicates BL Top (TI=0 Height) on profiles
Note: printed heights are for 18Z - heights for other times differ slightly
Results neglect thermals created by small-scale features not resolved by the smoothed model topography
Done
Internet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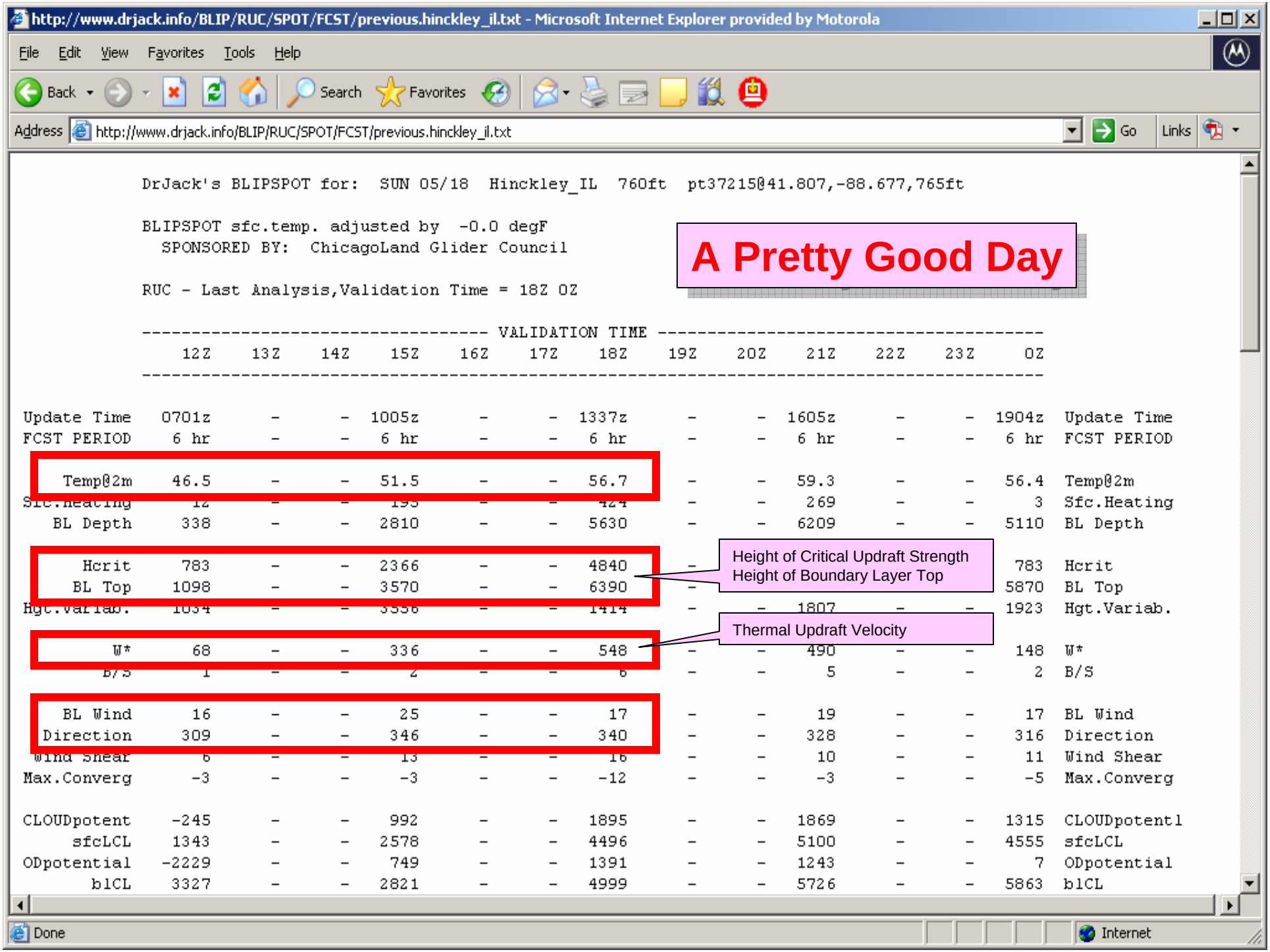
Address http://www.drjack.info/BLIP/RUC/SPOT/FCST/hampshire_il.txt
Go Links Google "blipspot" dr jack
DrJack's BLIPSPOT for: TUE 10/12 Hampshire_IL 889ft pt37818@42.147,-88.420,844ft
BLIPSPOT sfc.temp. adjusted by +0.1 degF
SPONSORED BY: ChicagoLand Glider Council
RUC - Last Analysis,Validation Time = 09Z 15Z
A Poor Day
VALIDATION TIME
12Z 13Z 14Z 15Z 16Z 17Z 18Z 19Z 20Z 21Z 22Z 23Z 0Z
FCST PERIOD 6 hr - - 6 hr - - 6 hr - - 6 hr - - 9 hr FCST PERIOD
Temp@2m 44.7 - - 48.3 - - 61.2 - - 57.3 - - 53.1 Temp@2m
Sfc.Heating 1 - - 28 - - -16 Sfc.Heating
BL Depth 16 - - 174 - - 2515 - - 1600 - - 16 BL Depth
Hcrit 241 - - 889 - - 2302 241 Hcrit
BL Top 257 - - 1063 - - 3404 - - 2489 - - 257 BL Top
Hgt.Variab. 920 - - 1237 - - 638 - - 997 - - 2451 Hgt.Variab.
W* 0 - - 67 - - 329 - - 143 - - 0 W*
B/S 0 - - 1 - - 4 - - 2 - - 0 B/S
BL Wind 6 - - 9 - - 14 - - 13 - - 7 BL Wind
Direction 048 - - 067 - - 103 - - 100 - - 074 Direction
Wind Shear 2 - - 3 - - 5 - - 5 - - 0 Wind Shear
Max.Converg 0 - - 0 - - 2 - - -5 - - 2 Max.Converg
CLOUDpotent -605 - - -383 - - -1765 - - -807 - - -1729 CLOUDpotentl
sfcLCL 862 - - 1446 - - 5169 - - 3296 - - 1986 sfcLCL
ODpotential -12446 - - -11054 - - -10039 - - -8841 - - -9644 ODpotential
blCL 12703 - - 12117 - - 13443 - - 11330 - - 9901 blCL
Height of Critical Updraft Strength
Height of Boundary Layer Top
Thermal Updraft Velocity
Done
Internet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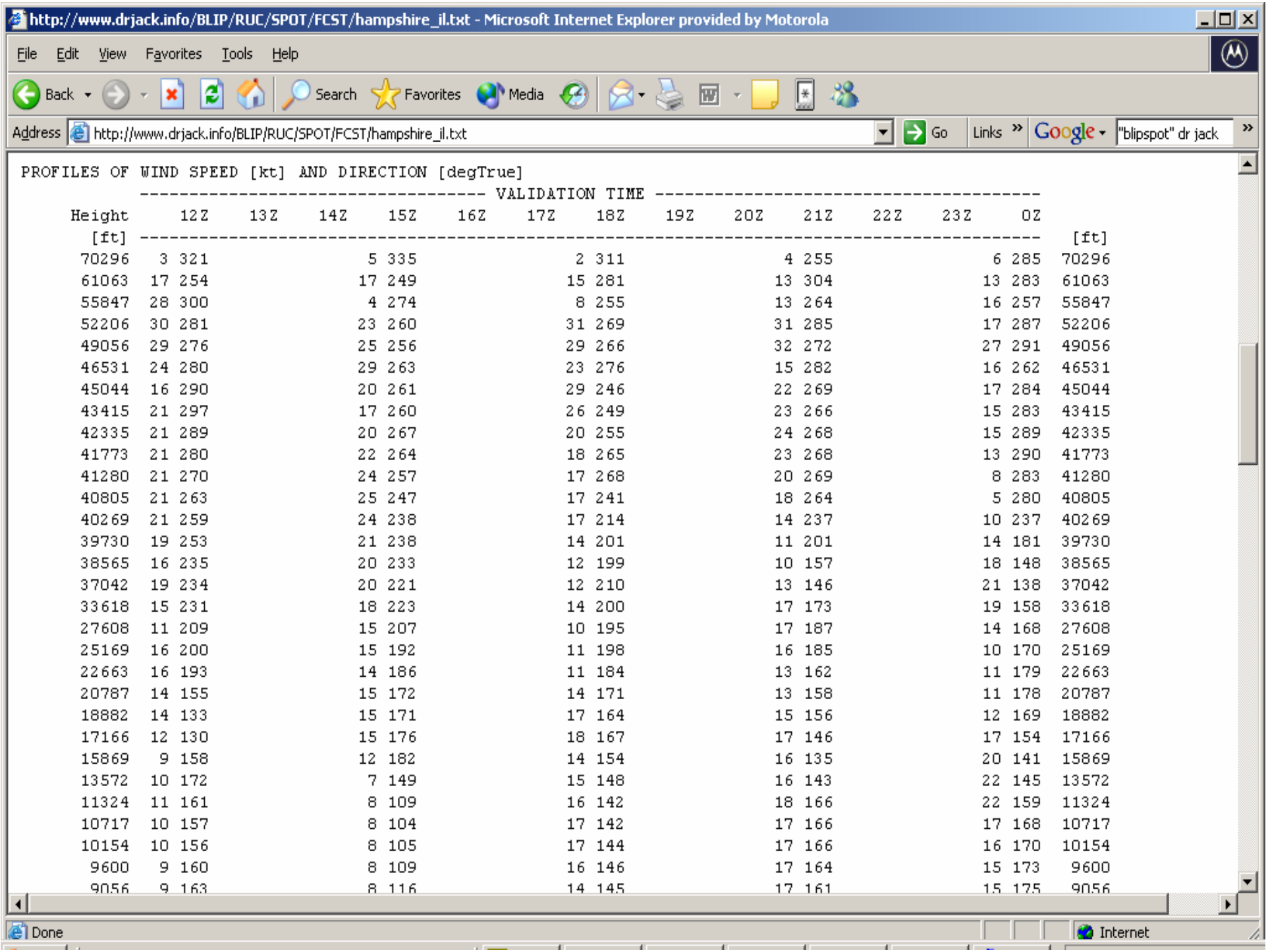
Address http://www.drjack.info/BLIP/RUC/SPOT/FCST/previous.hinckley_il.txt
Go Links
DrJack's BLIPSPOT for: SUN 05/18 Hinckley_IL 760ft pt37215@41.807,-88.677,765ft
BLIPSPOT sfc.temp. adjusted by -0.0 degF
SPONSORED BY: ChicagoLand Glider Council
RUC - Last Analysis,Validation Time = 18Z 0Z
A Pretty Good Day
VALIDATION TIME
12Z 13Z 14Z 15Z 16Z 17Z 18Z 19Z 20Z 21Z 22Z 23Z 0Z
Update Time 0701z 1005z 1337z 1605z 1904z Update Time
FCST PERIOD 6 hr 6 hr 6 hr 6 hr 6 hr FCST PERIOD
Temp@2m 46.5 51.5 56.7 59.3 56.4 Temp@2m
Sfc.Heating 12 195 424 269 3 Sfc.Heating
BL Depth 338 2810 5630 6209 5110 BL Depth
Hcrit 783 2366 4840 783 Hcrit
BL Top 1098 3570 6390 5870 BL Top
Hgt.Variab. 1034 3556 1414 1807 1923 Hgt.Variab.
W* 68 336 548 490 148 W*
B/S 1 2 6 5 2 B/S
BL Wind 16 25 17 19 17 BL Wind
Direction 309 346 340 328 316 Direction
Wind Shear 6 13 16 10 11 Wind Shear
Max.Converg -3 -3 -12 -3 -5 Max.Converg
CLOUDpotent -245 992 1895 1869 1315 CLOUDpotentl
sfcLCL 1343 2578 4496 5100 4555 sfcLCL
ODpotential -2229 749 1391 1243 7 ODpotential
blCL 3327 2821 4999 5726 5863 blCL
Height of Critical Updraft Strength
Height of Boundary Layer Top
Thermal Updraft Velocity
Done
Internet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Address http://www.drjack.info/BLIP/RUC/SPOT/FCST/hampshire_il.txt
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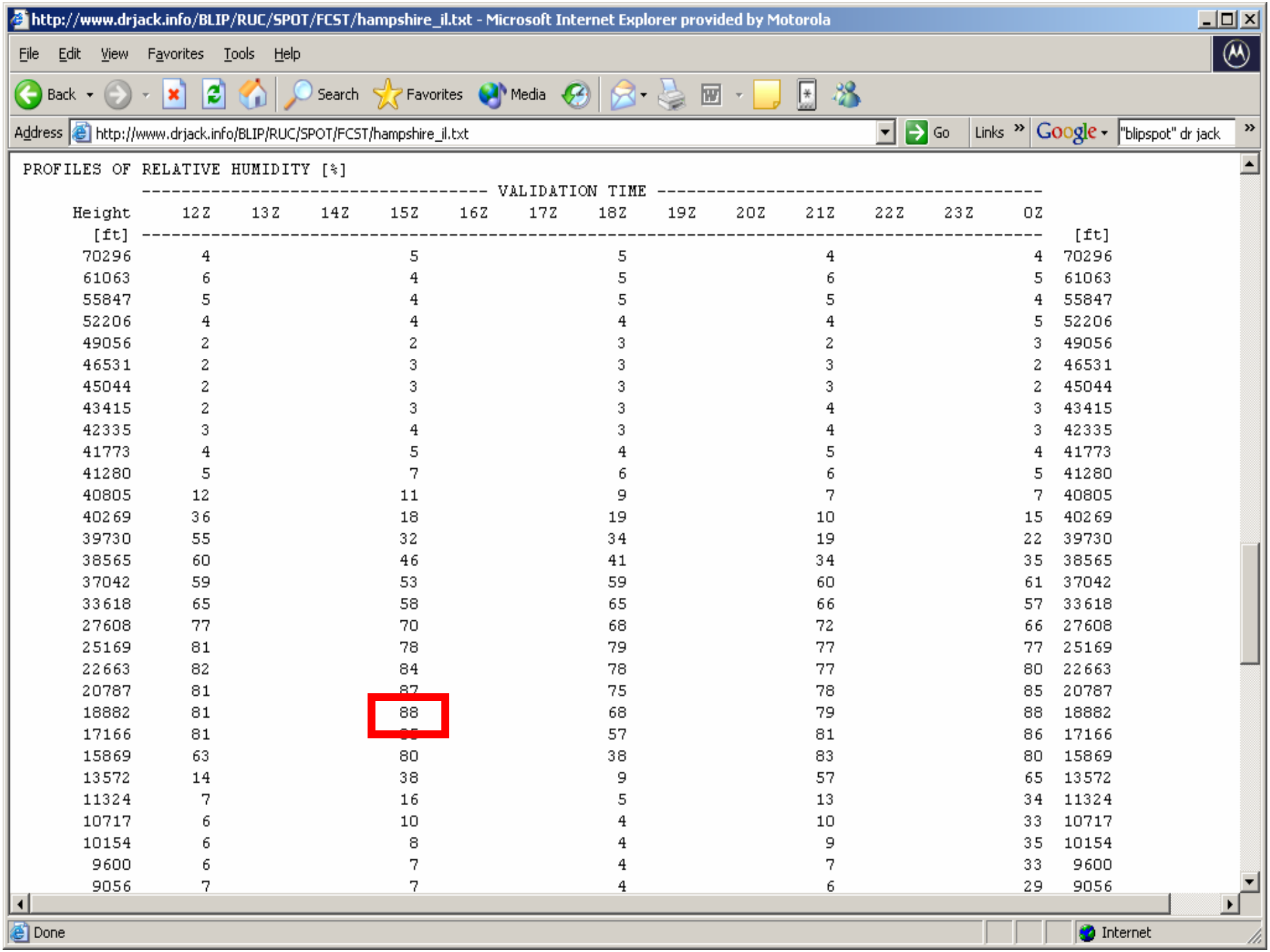
PROFILES OF WIND SPEED [kt] AND DIRECTION [degTrue]
VALIDATION TIME
Height [ft] 12Z 13Z 14Z 15Z 16Z 17Z 18Z 19Z 20Z 21Z 22Z 23Z 0Z [ft]
70296 3 321 5 335 2 311 4 255 6 285 70296
61063 17 254 17 249 15 281 13 304 13 283 61063
55847 28 300 4 274 8 255 13 264 16 257 55847
52206 30 281 23 260 31 269 31 285 17 287 52206
49056 29 276 25 256 29 266 32 272 27 291 49056
46531 24 280 29 263 23 276 15 282 16 262 46531
45044 16 290 20 261 29 246 22 269 17 284 45044
43415 21 297 17 260 26 249 23 266 15 283 43415
42335 21 289 20 267 20 255 24 268 15 289 42335
41773 21 280 22 264 18 265 23 268 13 290 41773
41280 21 270 24 257 17 268 20 269 8 283 41280
40805 21 263 25 247 17 241 18 264 5 280 40805
40269 21 259 24 238 17 214 14 237 10 237 40269
39730 19 253 21 238 14 201 11 201 14 181 39730
38565 16 235 20 233 12 199 10 157 18 148 38565
37042 19 234 20 221 12 210 13 146 21 138 37042
33618 15 231 18 223 14 200 17 173 19 158 33618
27608 11 209 15 207 10 195 17 187 14 168 27608
25169 16 200 15 192 11 198 16 185 10 170 25169
22663 16 193 14 186 11 184 13 162 11 179 22663
20787 14 155 15 172 14 171 13 158 11 178 20787
18882 14 133 15 171 17 164 15 156 12 169 18882
17166 12 130 15 176 18 167 17 146 17 154 17166
15869 9 158 12 182 14 154 16 135 20 141 15869
13572 10 172 7 149 15 148 16 143 22 145 13572
11324 11 161 8 109 16 142 18 166 22 159 11324
10717 10 157 8 104 17 142 17 166 17 168 10717
10154 10 156 8 105 17 144 17 166 16 170 10154
9600 9 160 8 109 16 146 17 164 15 173 9600
9056 9 163 8 116 14 145 17 161 15 175 9056
Done
Internet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PROFILES OF RELATIVE HUMIDITY [%]
VALIDATION TIME
Height [ft] 12Z 13Z 14Z 15Z 16Z 17Z 18Z 19Z 20Z 21Z 22Z 23Z 0Z [ft]
70296 4 5 5 4 4 70296
61063 6 4 5 6 5 61063
55847 5 4 5 5 4 55847
52206 4 4 4 4 5 52206
49056 2 2 3 2 3 49056
46531 2 3 3 3 2 46531
45044 2 3 3 3 2 45044
43415 2 3 3 4 3 43415
42335 3 4 3 4 3 42335
41773 4 5 4 5 4 41773
41280 5 7 6 6 5 41280
40805 12 11 9 7 7 40805
40269 36 18 19 10 15 40269
39730 55 32 34 19 22 39730
38565 60 46 41 34 35 38565
37042 59 53 59 60 61 37042
33618 65 58 65 66 57 33618
27608 77 70 68 72 66 27608
25169 81 78 79 77 77 25169
22663 82 84 78 77 80 22663
20787 81 87 75 78 85 20787
18882 81 88 68 79 88 18882
17166 81 57 81 86 17166
15869 63 80 38 83 80 15869
13572 14 38 9 57 65 13572
11324 7 16 5 13 34 11324
10717 6 10 4 10 33 10717
10154 6 8 4 9 35 10154
9600 6 7 4 7 33 9600
9056 7 7 4 6 29 9056
Done
Internet