

I always check these settings and make adjustments before running the forecast,

Fine tune the heat island, in my case I lowered the setting, this brought the low night temperature back up to the Wxsim forecast, observe several forecasts and adjust this setting Until you get your optimum results

Make sure you have this information correct

**Site Name:** Cheddleton  
**Lat:** 53.07N **Lon:** 2.04W **Ltz:** 0W **Elev:** 498ft  
**N.Min:** 7 **N.Max:** 16 **N.DP:** 5.5 **N.W.T:** 7.5

**Clouds:**

Level	% Coverage	Opacity	Direction (from)
1	0	0	270
2	42	3.1	270
3	0	0	270
4	17	1.5	270
5	0	0	270

**Low Clouds:** scattered  
**Middle Clouds:** thin scattered  
**High Clouds:** none  
**Overall Sky:** partly cldy

**%TSC:** 52 **%VST:** 76 **Sol Rad:** 462 **UV:** 0.0 **Ozone:** 274

**Refinements:**

- Auto Cumulus
- Auto Stratus
- Auto Haze

**Haze:** thin (0.7)  
**Dew/Frost:** Default (def)  
**Fog:** default (def)

**Potential Dew Point:** 5.5 C  
**Approximate Visibility:** 13 mi = 21 km

**Heat Island:** rural (26)

Current Precip	Yes	No
Recent Precip	Yes	No
Snow/Ice Cover	Yes	No
Recent Temps	Yes	No
Diurnal Breeze	Yes	No
Site to West	Yes	No
Stop AM Rain	Yes	No

**Temperature:** 11.1 F / 10 C  
**Wind:** Speed 5.8 mi/hr, Direction 270

**Barometric Pressure:** 1016 mb (hPa) / inches Hg

Keep an eye on the Haze setting

Before running the forecast check the cloud cover and alter to your outside conditions

Sometimes I use these settings depending on current station conditions

WXSIM Data Entry

**File** **Print Options** **Preferences** **Location** **Import** **Parameters** **Output Menu** **Start** **Help** **License** **Register**

**Import Data**  
**Cull/Append**  
**Import Local Data**  
**Start WXSIMATE**

**Clouds:**

Level	% Coverage	Opacity	Direction (from)
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The first process is to start WXSIMATE, to collect and import data

WXSIMATE Version 4.5 - Internet and Home Weather Station Data

Register Customize Schedule Help About

Site: EGCC+03334 Working directory: C:\wxsim Manual, for checked items:

File to create: c:\wxsim\data110328.txt  
 Include this saved file: c:\wxsim\readydat.txt

Computer on Daylight Savings Time (DST)

Internet Download

Download Files

Auto Cull Time stamp (UTC): latest

2nd download data files from the download 2009 5 22 15 15

Auto scheduler OFF Target URL: http://www.temis.nl/uvradiation/nrt/uvibare.php?lon=-2.04&lat=53.07

Source (to change, you must actually click on your selection)

METAR http://www.met.fsu.edu/rawdata/metar/

FSU buoy, hours old = 1 Extended METAR only: Advection  Hr +10 min only:

SYNOP http://www.met.fsu.edu/rawdata/syn/

GFS model data SYNOP latest multiple of (hr) 3 6

RAOB http://www.met.fsu.edu/rawdata/radiosonde/

FOUS Last mult of 6 12 0Z 12Z Site:  1  2  3  Assume 1 hr lag

NGM http://twister.sbs.ohio-state.edu/fous/...

NAM

MOS Site:  1  2  3 NOTE: FOUS and MOS are relevant only for North America

NGM http://www.nws.noaa.govmdl/forecast/text/...

GFS

NAM (ETA)  Omit half during cull to shorten file

Ozone in Dobson Units (Copyright © KNMI/ESA; http://www.temis.nl/)

Download progress (in discrete 'chunks'):

If you don't get enough information from these websites, you can change them

Import from Local Station

Download Local station data directory (omit last slash) this month only (if http): C:\Wdisplay\logfiles

Time: latest of 2009 5 22 16

Import Data

Note: If the source file uses DST, then use it in WXSIM also.

1st Import Data from your station data file 0 mm

Temperature	13.0	Precipitation rate	0.00
Relative humidity	83	Duration (hours)	0.00
Dew Point	10.2	<b>Recent Data</b>	
Pressure	1016.6	24 hour max T	14.3
Wind speed	1.1	24 hour min T	7.1
Wind gust	5.6	4 day mean T	10.4
Wind direction	245	24 hour precip	1.40
* Estimated clouds	75	Ended (hrs) ago	4.58
* Main cloud level	1	7 day precip	50.60
* Estimated haze	1.2	30 day precip	121.60

\* Valid only with solar radiation sensor, in daytime

WXSIM Data Entry

File Print Options Preferences Location Import Parameters Output Menu Start Help License Register

Import Data

Cull/Append

Import Local Data

Start WXSIMATE

Da/Mo/Yr	22/5/2009	Time	16:12	Lat	53.07N	Lon	2.04W	Ltz	0W	Elev	498ft	N.Min	7	N.Max	16	N.DP	5.5	N.W.T	7.5
----------	-----------	------	-------	-----	--------	-----	-------	-----	----	------	-------	-------	---	-------	----	------	-----	-------	-----

Sunrise 4:59 A Sunset 9:12 P Sun Alt 42 Ma 57

Midpoint 1 8:40 A Midpoint 2 10:23 P Sun Azi 246 S.R. Azi 53

Temperature 11.1 Wind Chill 10 Heat Index 11

Relative Humidity % 5.5 Vap.Pres. 9.1

Dew Pt 68.5 %RH 8.3 Wet Bulb 5.7 Mix.Rat.

Barometric Pressure 1016

mb (hPa) Station inches Hg Sea Level

Wind: Speed 5.8 mi/hr km/hr knots m/sec

Direction (from) 270

Clouds:

Level	% Coverage	Opacity	Direction (from)
1	0	0	270
2	42	3.1	270
3	0	0	270
4	17	1.5	270
5	0	0	270

Low Clouds scattered Middle Clouds thin scattered High Clouds none Overall Sky partly cldy

%TSC 52 %VST 76 Sol Rad 462 UV 0.0 Ozone 274

Refinements:

Auto Cumulus Auto Stratus Auto Haze

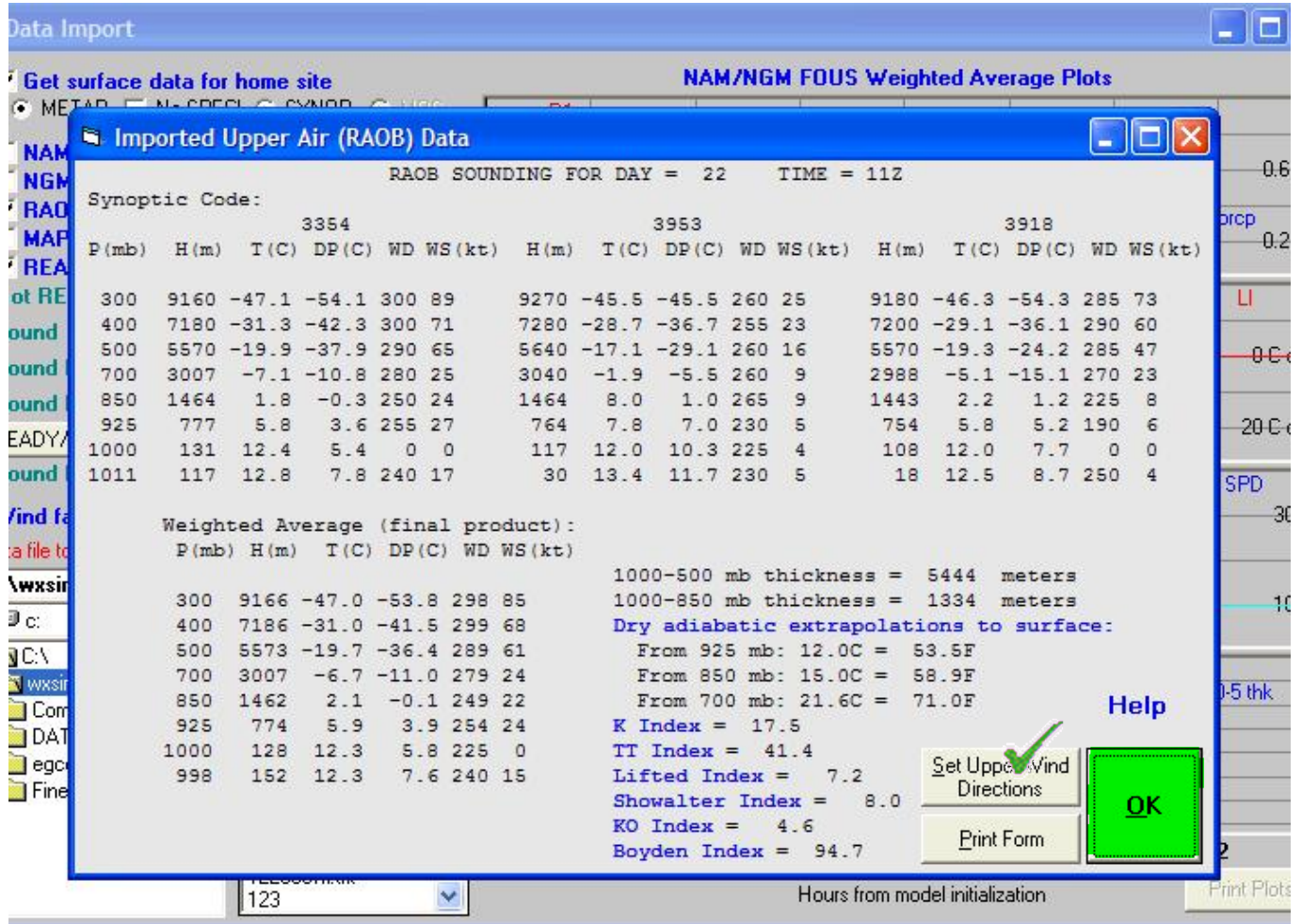
Haze: thin 0.7

Dew/Frost: Default Fog: default

Potential Dew Point 5.5 C Approximate Visibility 13 mi = 21 km

Heat Island: rural 26

Current Precip	Yes	No
Recent Precip	Yes	No
Snow/Ice Cover	Yes	No
Recent Temps	Yes	No
Diurnal Breeze	Yes	No
Site to West	Yes	No
Stop AM Rain	Yes	No



### Local Station Data Import

Check the items you want WXSIM to import and use  
(Date and time will be imported automatically)

**Current Data**

Temperature

Relative Humidity

Pressure

Wind Speed

Wind Direction

Cloud Cover

Precipitation

Estimated Haze

**Recent Data (for refinements)**

Recent Precipitation

Recent Temperatures

**Data for Calibration Run**

Wind Speed

Cloud Cover

Estimated Haze

[Help](#)

Cancel OK

---

**Barometric Pressure** 1016

mb (hPa)     Station

inches Hg     Sea Level

%TSC 52    %VST 76    Sol Rad 462    UV 0.0    Ozone 274

**Wind:** Speed 5.8     mi/hr     km/hr     knots     m/sec

Use Letters

Direction (from) 270

N   E   S   W   N

**Refinements:**

Auto Cumulus    Haze: thin

Auto Stratus    0.7

Auto Haze

Dew/Frost: Default    Fog: default

Potential Dew Point 5.5 C    Approximate Visibility 13 mi = 21 km

**Heat Island:** rural 26

Current Precip	Yes	No
Recent Precip	Yes	No
Snow/Ice Cover	Yes	No
Recent Temps	Yes	No
Diurnal Breeze	Yes	No
Site to West	Yes	No
Stop AM Rain	Yes	No

Direction (from) 254    249    279    289    298

Middle Clouds thin scattered    High Clouds none    Overall Sky partly cldy

### Upper Level Data Verification - Valid 4:00 P 22 May (Using Geopotential Heights)

Level	Pres	Ht.AGL	Ht.ASL	Temp	D.Pt	R.Hum	W.Dir
Surf	999	0	152	13.0	10.2	83	270
Mn BL	983	132	284	11.1	7.1	76	277
Upr BL	973	220	372	10.4	6.0	74	282
1	937	529	681	8.6	4.4	75	254
2	860	1234	1386	4.2	-0.2	73	249
3	706	2818	2969	-4.5			279
4	500	5447	5599	-21.4			289
5	300	9023	9175	-47.8			298

**Interpolated 'Mandatory' RAOB Levels:**

1000	1000	-11	140	10.0			
925	925	635	787	7.9			
850	850	1330	1482	3.7			
700	700	2883	3034	-4.9			
500	500	5447	5599	-21.4			289
300	300	9023	9175	-47.8			298

**M.C.-CLDY**

SC% = 75    VLT% = 44    Haze = 1.2    Vis = 14 km

SLP = 1017

1000-850 thk = 1341    Lift Cond Lvl

850-700 thk = 1553    AGL 351

1000-500 thk = 5458    ASL 503

RAOB based thk = 5444    PRS 957

FOUS based thk = 0

READY based thk = 0

Freezing Level

AGL 2000

ASL 2152

B.lyr dep from norm: -3.6

**Stability Indices:**

Lifted Index = 3.5    Showalter = 5.7

K Index = 15.1    KO Index = 2.6

Total Totals = 45.5    Boyden = 94.4

Temp Adjust MIX

Save Adj    Level 1, 2 Dew Points

1-Click    Auto Fix at    Auto Cls

Use Prev    1  4.4    Fix     St

Multi Layer     FOUS    2  -0.2    Fix     Cu

Single Layer Lvl Adj %S.Cov Opacity

1	0.0	0	0.0
2	0.0	42	3.1
3	0.0	0	0.0
4	0.0	17	1.5
5	0.0	0	0.0

[View RAOB text](#)

Print Form

### Data Import

Get surface data for advection  
 METAR  No SPECI  SYNOP  MOS

NAM FOUS: 100 0   
 NGM FOUS:   
 RAOB data: NAM NGM   
 MAPS/RUC-2 for: 0   
 READY or GFS:

Got READY/GFS for:

Found 4 METARs  
 Found NAM FOUS for:   
 Found NGM FOUS for:

READY/GFS Bias Factors: 03354  
 Found RAOB for:

Wind factors: FOUS 78 READY/GFS 78

Data file to import (select or type):

c:\wxsim\

- 00Z.TXT
- 0122007.csv
- 0122007.txt
- 0122007.wxf
- 0122007log.txt
- 01Z.TXT
- 02Z.TXT
- 09Z.TXT
- 10Z.TXT
- 112006wl.txt
- 12007wl.txt
- 122006wl.txt
- 123

### NAM/NGM FOUS Weighted Average Plots

6 hr precip  
 6 hr precip  
 10-5 thk  
 Hours from model initialization

### Advection Data Entry

Valid 4:00 P 22 May M.C.-CLDY Temp = 13.0 DP = 10.2  
 WS = 5.8 MPHDir = 270

**Advection Options:**  
 Neutral (none)  Regional Data  2 Upwind Sites  Default (frontal codes)  Direct Click

WS: 5.8 MPHDir: 270  
 Anti-Cyc: 0 Spd: 5.3  
 Cyclonic: % 62

Maximum Range: 800 mi = 1287 km

Regional Data (On-File Sites)

Temp	Dew Pt	W.Spd	Sky	Clear	Ignore	Use

ME+03967 Casement/Milit -- IRL 183 275 -1.8  
 3AA+03917 Belfast/Alderg NI GBR 202 303 -1.9  
 xx+03915 Portglenone NI GBR 218 305 -1.2  
 xx+03903 Saint Angelo NI GBR 247 292 -1.3  
 ea Level 250 mi (400 km) W 250 270 -1.9  
 xx+03980 Malin Head -- IRL 266 307 -1.6  
 xx+03973 Connaught/Airp -- IRL 285 282 .7  
 INN+03962 Shannon/Airpor -- IRL 16.1 12.1 2.1  
 2093 DATA BUOY -- 13.9 11.1 4.0  
 xx+03976 Belmullet Peni -- IRL 336 284 -1.7  
 2090 DATA BUOY -- 380 270 -1.8  
 2090 DATA BUOY -- 380 270 -1.8  
 ea Level 500 mi (800 km) W 500 270 -1.7  
 ea Level 500 mi (800 km) WNW 500 292 -1.7  
 2105 DATA BUOY DB61 -- 511 302 -1.7  
 2108 DATA BUOY DB61 -- 537 271 -1.7  
 ea Level 750 mi (1200 km) W 750 270 -1.7  
 7L+99017 SHIP C7L/LIMA --UK 762 291 -1.7  
 I772 DATA BUOY -- 996 284 -1.6

Print Form   Save Profile

Data for 4 stations

Advection Data Map  
 B. by wind from 286  
 Wt avg surf wind 9 from 235

temperature  
 dew point  
 240 km

### Advection Data Entry

Valid 4:00 P 22 May M.C.-CLDY Temp = 13.0 DP = 10.2  
 WS = 5.8 MPH Dir = 270

**Advection Options:**  
 Neutral (none)  Regional Data  
 2 Upwind Sites  Default (frontal codes)  
 Direct Click  temp  dp

WS = 5.8 MPH Dir = 270  
 Anti-Cyc Spd 0 Cyclonic % 0  
 Straight Line  Best Fit Line  
 Smooth Curve  \*Monotone  
 Multi-Curve F

Maximum Range 800 mi = 1287 km

**Regional Data (On-File Sites)** Import Use All  
 Temp Dew Pt W.Spd Sky Clear Ignore Use

GGP+..... Liverpool/Airp -- GBR 38 298 -2.1
GNR+03321 Hawarden -- GBR 40 280 -2.3
2125 DATA BUOY DB51 -- 88 305 -2.3
GOV+03302 Valley/RAF -- GBR 104 277 -2.1
GNS+03204 Isle Of Man/Ro -- GBR 127 303 -1.9
IDW+03969 Dublin/Airport -- IRL 176 278 -.9
IME+03967 Casement/Milit -- IRL 183 275 -.8
GAA+03917 Belfast/Alderg NI GBR 202 303 -.9
xxx+03915 Portlengone NI GBR 218 305 -1.2
xxx+03903 Saint Angelo NI GBR 247 292 -1.3
ea Level 250 mi (400 km) W 250 270 -1.9
xxx+03980 Malin Head -- IRL 266 307 -1.6
xxx+03973 Connaught/Airp -- IRL 285 282 .7
INN+03962 Shannon/Airpor -- IRL 288 265 -1.6
2093 DATA BUOY -- 309 291 -1.8
xxx+03976 Belmullet Peri -- IRL 336 284 -1.7
2090 DATA BUOY -- 380 270 -1.8
2090 DATA BUOY -- 380 270 -1.8
ea Level 500 mi (800 km) W 500 270 -1.7

Lat Lon D

Print Form Use Previous Save Profile

temperature +10C  
 -10C dew point 240 km

OK

### Interrupt Planner

Continuous: Using READY or GFS Abrupt Changes: Adv prompt for dir changes > 45 degrees Solar Ecl  
 Max time between adv prompts = 36 hrs Mouse Posit 41  
 Reduce superadiabatic  
 Precip in form of showers  
 Use 850 mb RH

Level 1 (low) Level 2 Level 3 (alto) Level 4 Level 5 (cirro)  
 Wind Speed S.L. Pressure 850 mb Temp 1000-500 mb thickness Level 1 Temp (taken as 950 mb)  
 Wind Direction Precipitation Total = 3.7 mm Adjust + - 0

L1T use: 0% 50% 100%

Use model data or select items and click onto graph. May leave blank if desired.

Clear Last Clear Selected Clear All File Save File Recall Save for next run

Use Model Data from READY or GFS

OK

**Output**

Menu Interrupts Pause Finish

DATE TIME TEMP WIND R.HUM W.DIR WCF SN.DPTH ADV.RT WEATHER

FORECAST RUN:

DATE TIME TEMP WIND R.HUM W.DIR WCF SN.DPTH ADV.RT WEATHER

Press 'c' to continue with decaying advection or 'p' for new prompt



Int Code [ ]

Sky Cover

1	[ ]	[ ]	[ ]
2	[ ]	[ ]	[ ]
3	[ ]	[ ]	[ ]
4	[ ]	[ ]	[ ]
5	[ ]	[ ]	[ ]

Precip Intensity

in/hr	mm/hr
0.00	0.0

in Total mm

0.00	0.0
------	-----

Wind Speed [ ]

Thkns 5449

temp	Sat	Sun	Mon	Tue	Wed	Thu
28	80 %rh					80
5					20 mm/hr	25
low pt						snow depth

Active: Advection FOUS Plan Sea Breeze Saving Data Auto: Cumulus Stratus Haze

Save Forecast

Archive

wof only

Graphic

ext boot

Repeat

Start Fresh

Quit

**Advection Data Entry**

Valid 8:15 P 22 May CLOUDY Temp = 11.6 DP = 9.3 Using deg C and km

WS = 4.8 MPH Dir = 222

Advection Options:

- Neutral (none) D.Rat. 1.15
- Regional Data
- 2 Upwind Sites
- Default (frontal codes)
- Direct Click  temp  dp

Anti-Cyc Spd 6.5

Cyclonic % 71

Search

Two Upwind Sites

Site	Distance	Temp	Dew Pt
Site 1:	500	11.6	9.3
Site 2:	1000	11.6	9.3

Maximum Range 800 mi = 1287 km

Regional Data (On-File Sites) Import Use All

temp	Dew Pt	W.Spd	Sky

Clear Ignore Use

Frontal Codes [ ] Text

Lat	Lon	Dist	Temp	DP	Gradients (F/100 mi):	
					Temp	Dew Pt.

Print Form

Use Previous

Save Profile

temperature						
+10C						
-10C						
dew point					240 km	

OK

Menu Interrupts Pause Finish

DATE	TIME	TEMP	WIND	R.HUM	W.DIR	WCF	SN.DPTH	ADV.RT	WEATHER
28 May	1:00 P	16.2	12	67	245	15	0.0	0.0	M.CLOUDY LIGHT DEW
28 May	1:30 P	16.8	12	64	245	16	0.0	0.0	M.CLOUDY
28 May	2:00 P	17.5	12	62	245	17	0.0	0.0	P.-M.CLDY
28 May	2:30 P	18.3	12	59	245	18	0.0	0.0	P.CLOUDY
Showers very unlikely									
28 May	3:00 P	18.9	11	56	245	19	0.0	0.0	P.CLOUDY
28 May	3:30 P	19.5	11	54	245	19	0.0	0.0	P.CLOUDY
28 May	4:00 P	19.9	11	53	245	20	0.0	0.0	FAIR-P.C.

Summary (min and max values):

DATE	MIN	MAX	MIN AT	MAX AT	DEW PT	R.HUM	%V.S.T.	WIND	SUNRISE	SUNSET
22 May*	10	14	11:55 P	5:05 P	9 10	79 91	28 73	4 7	4:59 A	9:12 P
23 May	9	17	5:00 A	4:20 P	8 9	58 94	23 47	4 6	4:57 A	9:13 P
24 May	9	20	5:15 A	3:15 P	8 10	51 90	30 84	2 5	4:56 A	9:14 P
25 May	10	16	6:05 A	4:10 P	9 11	74 97	19 43	1 12	4:55 A	9:16 P
26 May	9	17	5:15 A	3:30 P	8 10	64 90	39 90	5 10	4:53 A	9:17 P
27 May	9	16	5:55 A	4:40 P	8 10	70 96	22 72	7 14	4:52 A	9:18 P
28 May*	10	20	5:10 A	4:00 P	9 10	53 88	30 79	6 12	4:51 A	9:19 P

Int Code

Sky Cover

1	←		→
2	←		→
3	←		→
4	←		→
5	←		→

Precip Intensity

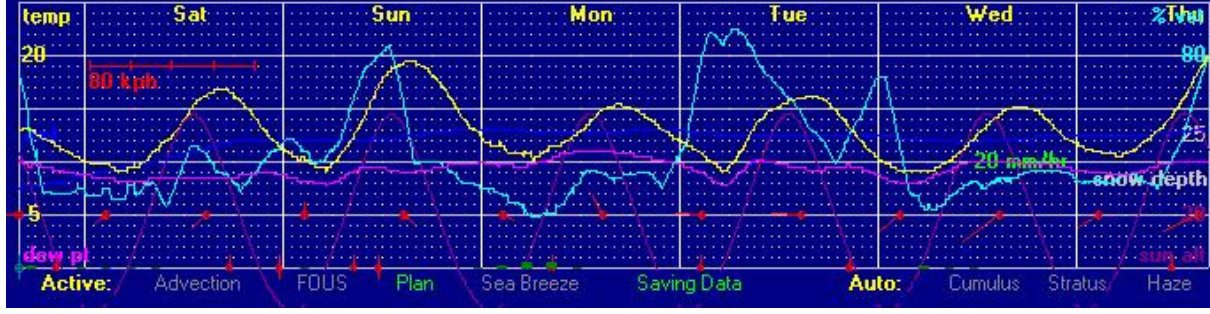
in/hr  mm/hr

in Total mm

Wind Speed

Thkns

TEXT BOX FULL



Save Forecast

Archive

.wav only

Graphic

ext boot

Repeat

Start Fresh

Quit