

Cross Country MET



A Good day forecast simply from the BBC

- **Look for Air mass!**
- A cold front has passed through over night. It might have even rained!
- The air is unstable over a large area producing consistent structure to the sky.
- The wind direction has some north in it!
Usually from the north west.

A Good day forecast

- **Look for Day/Night Temperatures**
- The bigger the difference between the minimum overnight temperature and the maximum mid day temperatures gives the higher cloud bases.
- Cloud base is the above difference divided by 2.5 (average environmental lapse rate) x 1000.
- Min 10; Max 20; = $10/2.5$ Cloud base is 4000'.
- Minimum for meaningful Cross-country 3500'.

Waddington Average Temperatures

Month	Max Temp	Min Temp	Difference	Cloud base	Sunshine hrs	Rainfall mm
Jan	6.3	1.0	5.3	2100	58.6	52.4
Feb	6.7	1.0	5.7	2200	73.2	37.8
Mar	9.4	2.5	6.9	2700	100.9	47.4
Apr	11.7	4.0	7.7	3000	143.7	44.4
May	15.4	6.7	8.7	3500	201.8	47.7
Jun	18.3	9.7	8.6	3500	185.7	55.3
Jul	21.0	11.9	9.1	3600	200.0	44.5
Aug	20.9	11.8	9.1	3600	191.9	57.6
Sep	17.7	9.8	7.9	3100	140.7	51.1
Oct	13.6	6.8	6.8	2700	109.4	53.4
Nov	9.2	3.6	5.6	2200	70.8	52.1
Dec	7.0	2.0	5.0	2000	52.4	55.1

Met Thermal Forecast

- **Thermal Strength.**
- How does the met man calculate thermal strength?
- Cloud base in 1000's divided by 1000 X 1.2, minus 1!
- Therefore
- 2000' cloud base gives
- $2000' \times 1.2 = 2 \times 1.2 = 2.4 - 1 = 1.4$ knot
- 3600' cloud base gives
- $3600' \times 1.2 = 3.6 \times 1.2 = 4.3 - 1 = 3.3$ knot
- 5000' cloud base gives
- $5000' \times 1.2 = 5 \times 1.2 = 6 - 1 = 5$ knots
- **But only for an average standard atmosphere!**
- **The humidity changes these rule of thumbs.**

Average Thermal/Task Time

	MAY	JUN	JUL DRY Month	AUG
CONVECTION STARTS	0700	0600	0600	0700
PEAK CONVECTION	11-1200	11-1200	11-1200	11-1200
CONVECTION DIES	1600	1700	1800	1730
Starting task at 1100	5 hours	6 hours	7 hours	6 ½ hours

A Good day forecast

- **Look for Wind!**
- Less than 8 knots produces good thermals but a long way apart. Cloud shadows move slowly and the mechanical mixing of the air (normally generated by the surface wind) does not happen. The sky is often large areas of blue and sink dominates a large part of the sky. Can be difficult. Sea breezes kill huge areas.
- Greater than 15 knots surface wind gives tighter thermals and generally more difficult into wind unless streeting or especially cross wind legs.
- So, 8-15 knots is ideal for cross-country cruising.

When to get airborne and where to go XC?

- To make the most of any day when endurance is required (5 hours or a big task) then it is best to get airborne just after the day has started to develop. It should then only get better or easier, depending on your point of view.
- But – Do not launch before the grass is dry.
- May launch after the surface wind has increased and veered!
- Go in any task direction - provided it is a line south down the middle of the country!

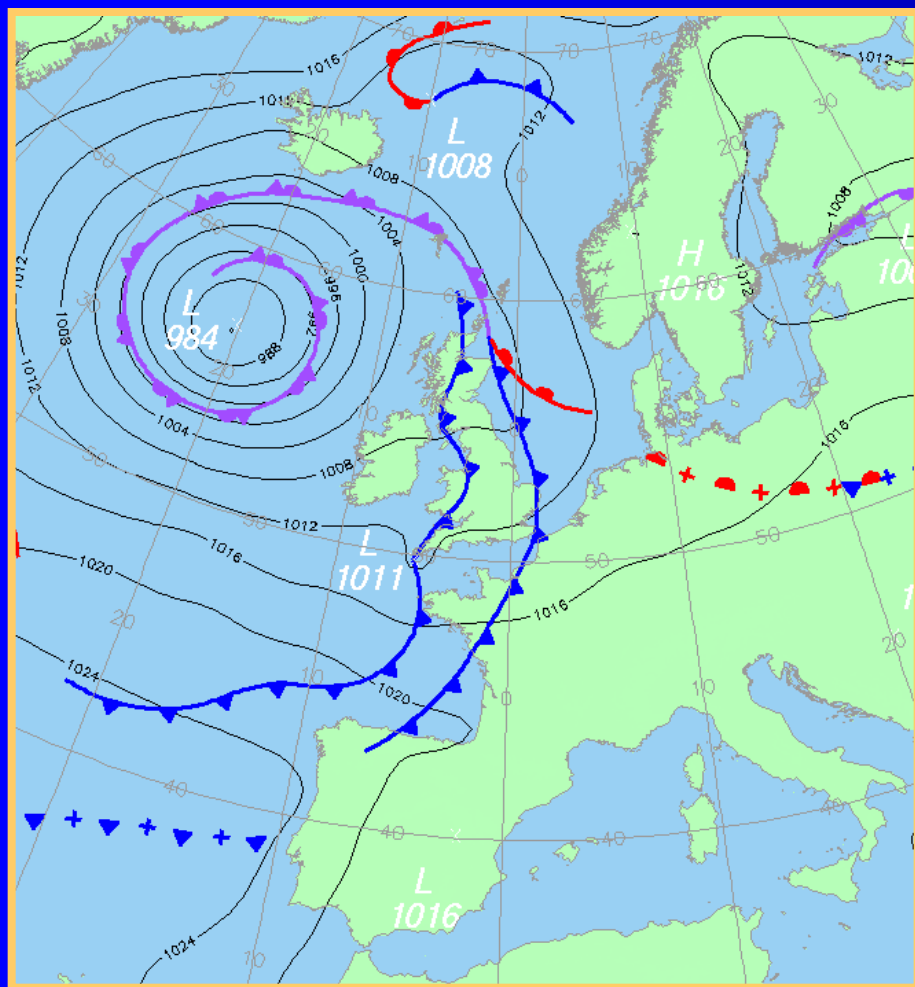
MORNING MET BRIEF

Thursday 16 June 2011

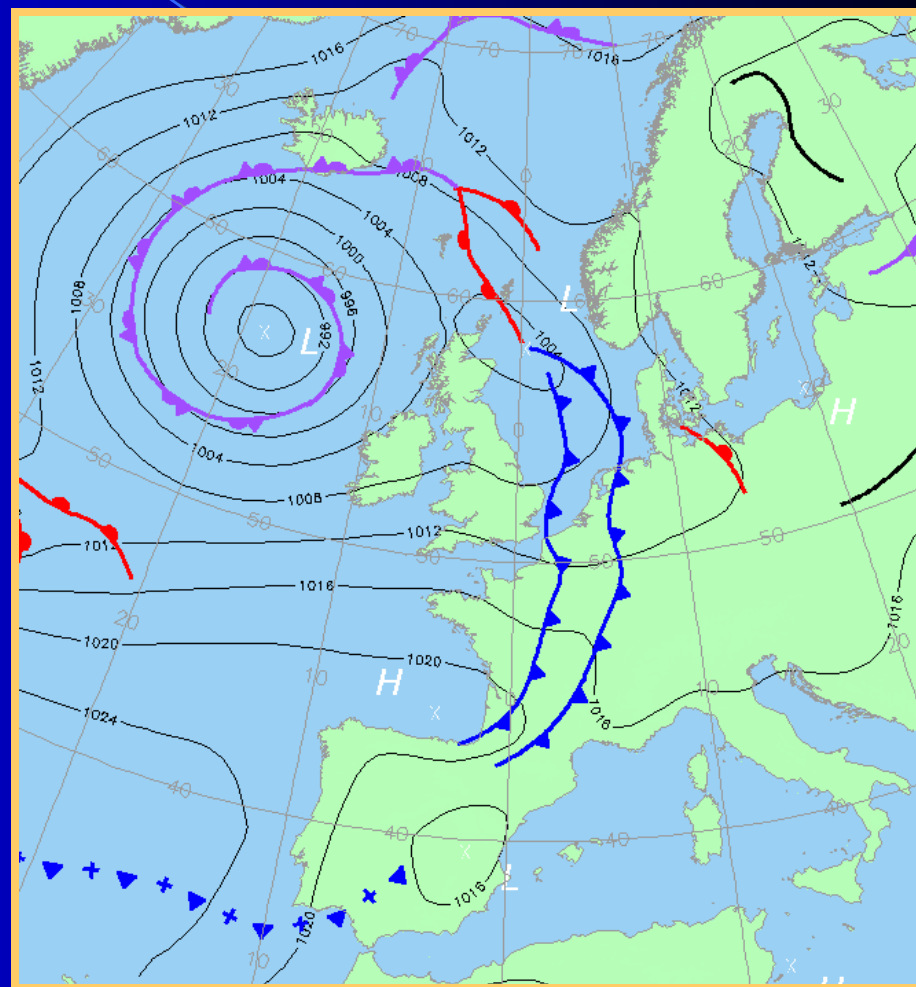
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ADVICE OR CLARIFICATION.**

SURFACE CHARTS FOR Thursday 16 June 2011

ACTUAL 0001 Z



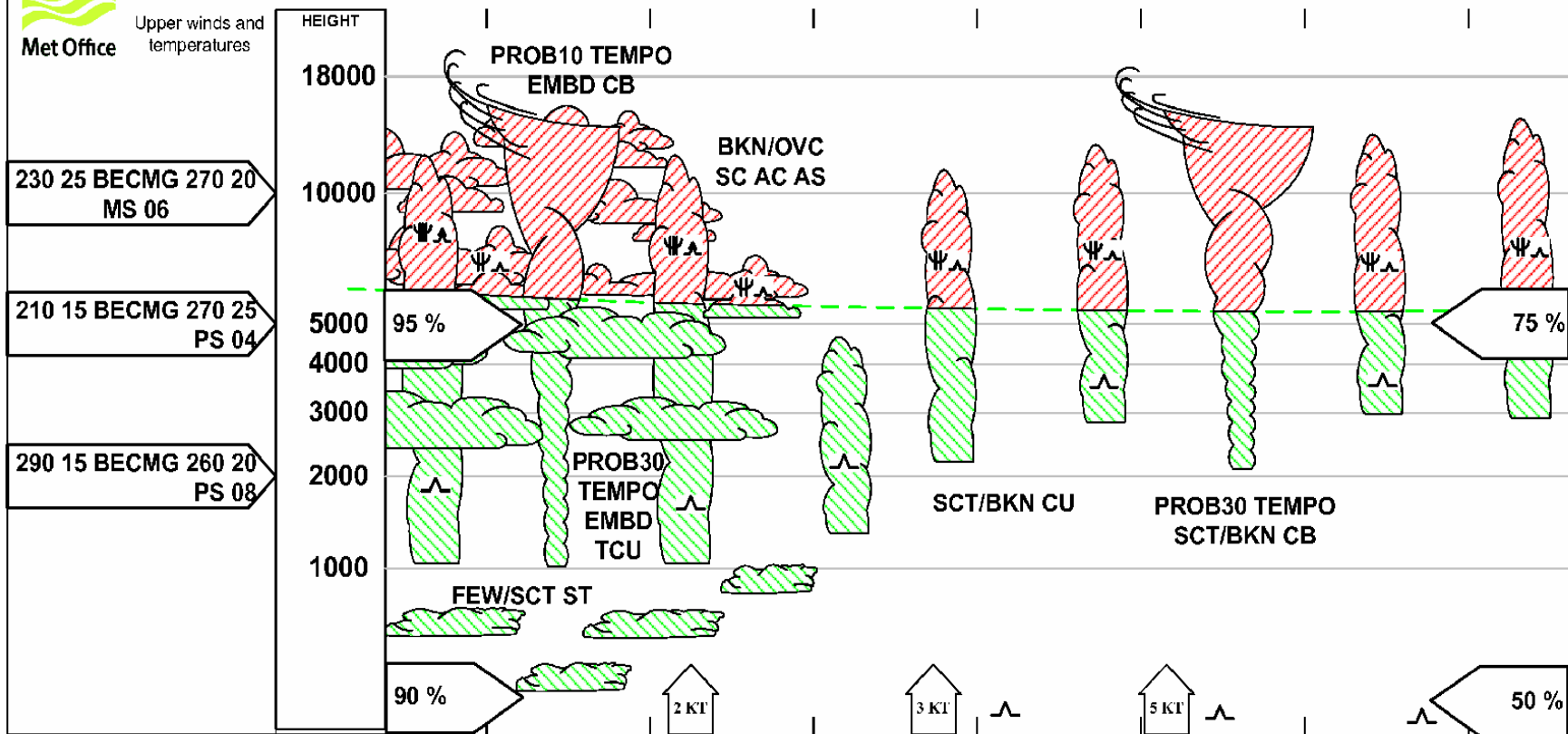
FORECAST 1200 Z





Upper winds and temperatures

HALTON TIME CROSS-SECTION FOR 16 JUN 11



TIME (UTC)	07	09	11	13	15	17	19
SURFACE WIND	VRB 03, MAINLY 230		290 06	250 12 G20	230 14 G 22 PROB20 TEMPO G 25		220 14 G 23
SURFACE VISIBILITY	15 KM TEMPO 7 KM PROB30 TEMPO 3000 M		25 KM TEMPO 7 KM PROB30 TEMPO 4000 M				
WEATHER	-RA TEMPO RA PROB30 TEMPO +RA/+SHRA		NIL TEMPO SHRA PROB30 TEMPO +SHRA				
WARNINGS	STRONG WIND IN FORCE						

All heights in feet above airfield level
 Cloud amount (Oktas): MOD / SEV ICE
 FEW: 1 - 2 SCT: 3 - 4 BKN: MOD / SEV TURB
 6 - 7 OVC: 8 TS / CB implies GR
 HILL FG implies VIS <200 M FZ precipitation implies

Winds in DEG true and KT
 Temperatures in DEG C
 RH: Relative Humidity (out of cloud) Thermal Strength
 Haze Area (Knots Air Mass) KT
 0 C ZERO DEG isotherm

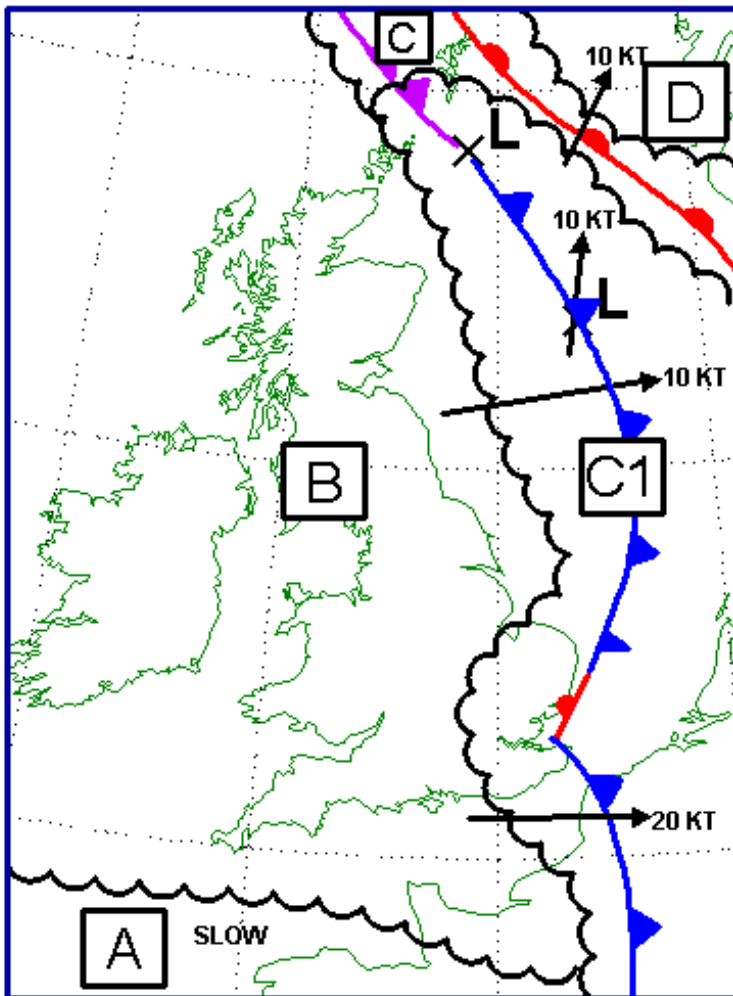
This forecast may be amended at any time.
 Issued by Met Office Benson at 160526 Z
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Forecast Weather below 10000 FT



Valid 160800 to 161700 Z JUN 11. Fronts/zones valid at 161200 Z

Met Office



AREA	SURFACE VIS AND WX	CLOUD	0 C
A	30 KM NIL ISOL 7 KM SHRA ISOL HILL FG	SCT/BKN CU SC (Ψ Λ 015-040 / 070-XXX)	060
B	30 KM NIL OCNL 7 KM SHRA ISOL 3000 M +TSRA/+SHRA ISOL HILL FG	AREAS SCT/BKN CU SC (Ψ Λ 015-040 / 080-XXX) ISOL CB 020-030 / XXX	050-070
C	20 KM NIL ISOL (OCNL C1) 7 KM RA/SHRA ISOL 3000 M +RA/+TSRA C1 ISOL (OCNL SEA COT) 2000 M DZ/BR ISOL 200 M FG SEA COT OCNL Λ ENGLISH CHANNEL AND WARM FRONT NE OCNL HILL FG	BKN (LOC OVC C1) AC (Ψ Λ 080 / XXX) ISOL EMBD CB 020-030 / XXX C1 BKN/OVC CU SC (Ψ N AND W) Λ 015-030 / 060-080 ISOL (OCNL SEA COT) BKN ST 004-010 / 015 (LOC BASE 000 FG)	070 N AND W 080-XXX SE
D	25 KM NIL ISOL 7 KM SHRA LAN ISOL HILL FG	ISOL SCT/BKN CU SC (Ψ LAN) Λ 030-040 / 060- (XXX LAN)	070

All heights in 100's of feet above mean sea level

XXX means above chart upper limit

Cloud amount (Oktas) MOD / SEV ICE Ψ/Ψ Speed of movement in KT

FEW: 1-2 SCT: 3-4 MOD / SEV TURB ~/~ Temperatures in DEG C

BKN: 5-7 OVC: 8 TS / CB implies GR/Ψ/Λ Hill FG implies VIS <200 M

This forecast may be amended at any time.

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Forecaster: Duty Forecaster

Contact telephone extension XXXX

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