

EFFECT OF WEATHER ON TIDAL PREDICTIONS (IN CAERNARFON)

WIND

EFFECT OF WIND ON TIDE HEIGHT (Difference in metres)								
AVERAGE WIND SPEED (KNOTS)	WIND DIRECTION							
	N	NE	E	SE	S	SW	W	NW
0	-	-	-	-	-	-	-	-
10	-0.02	-0.035	-0.02	-	+0.02	+0.035	+0.02	-
20	-0.07	-0.14	-0.07	-	+0.07	+0.14	+0.07	-
30	-0.16	-0.32	-0.16	-	+0.16	+0.32	+0.16	-
40	-0.28	-0.56	-0.28	-	+0.28	+0.56	+0.28	-
50	-0.43	-0.87	-0.43	-	+0.43	+0.87	+0.43	-
60	-0.63	-1.26	-0.63	-	+0.63	+1.26	+0.63	-

The figures shown above assume that the wind has been blowing from a given direction for at least 24hrs. Longer durations will result in even greater differences.

The location of weather system(s) can alter these differences substantially. It is the conditions over the Irish Sea and the approaches to St. George's Channel that are most important. Local variations in the weather can also have an effect

BAROMETRIC PRESSURE

EFFECT OF PRESSURE ON TIDE HEIGHT	
BAROMETRIC PRESSURE (Millibars)	HEIGHT DIFFERENCE (metres)
1043 mB	-0.27m
1033 mB	-0.18m
1023 mB	-0.09m
1013 mB	Standard Pressure for Tidal Predictions
1003 mB	+0.09m
993 mB	+0.18m
983 mB	+0.27m
973 mB	+0.36m
963 mB	+0.45m
953 mB	+0.54m