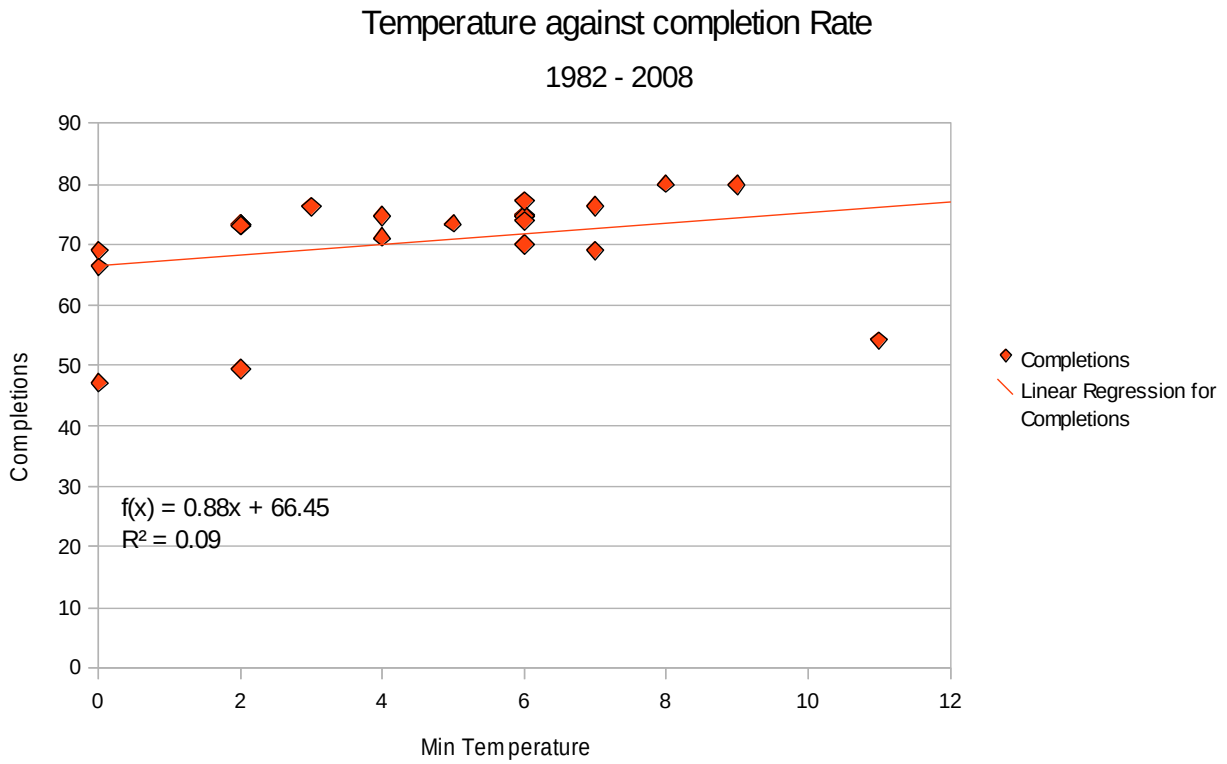
WANTED – DW Crews to Take on Weather
By John Ince

You might be forgiven for thinking that the DW record was all down to the flow on the River Thames but this article sets out to demonstrate that race times and success in the race for most competitors is down to more than rainfall. For the average competitor 1% will drop out for every one degree fall in the minimum temperature. If there are strong head winds an additional 20% will drop out. These figures are in addition to the normal drop out rate of slightly more than 20%. Thus in a cold race at 0 degrees with a strong head wind over 50% will drop out of the Senior Race.



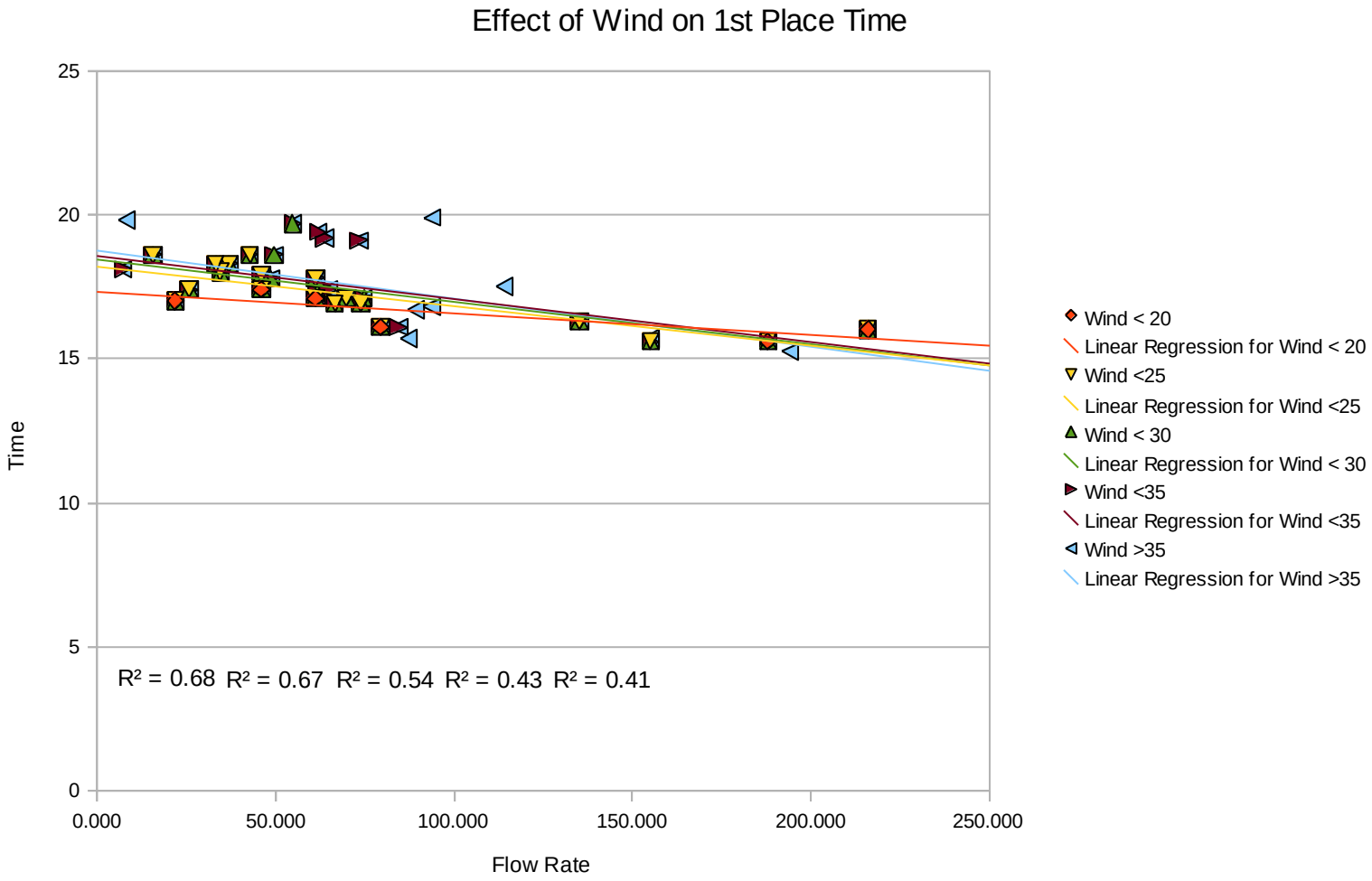
Thus the first thing you need to do is ensure you can cope with low temperatures and have the proper kit to keep you warm. You can't do much about the wind but you can prepare for the cold.

Over the years there are records of the flow rate on the Thames taken at the Kingston monitoring station and weather stations at Heathrow have wind speed and temperature records. Thus the different effects of the weather on the race can be subjected to statistical analysis to determine the different contributions made by flow, wind and temperature.

The impact of river flow is frequently quoted as the major factor in race times but the effect of the wind can also be critical, particularly if you want to both win the race and take the record. Although your local kayak salesman will sell you the best kit, there is absolutely no evidence that kit, apart from warm clothing is going to help speed your journey. Not the new skinny boats, nor the fancy winged paddles or those fluid packs on your back and certainly not those split paddles you can put in a bag. The DW is you against the elements.

In the plot below I have tried to identify the effect of wind on race times. To do this I have plotted the winning times of competitors over the last 30 years with different wind conditions. As I do not have wind direction, but only speed, I have plotted times against flow five times using different wind strengths. On the plot I have also shown the value of R2 which is a measure of predictability. i.e. if I have the flow rate how accurately can I guess the race time. The data shows that the times are most predictable with low wind speeds (Km/Hour). Wind speeds less than 20 have the highest value for R2 at 0.68 (values range from 0 – 1). As the wind speed increases the predictability is

lower. But you will notice that as the wind speed increases the race times also increase; i.e. in general wind is a problem for competitors. If you look at individual points those above the line were slowed by the wind. The worse affected times being those with wind speeds greater than 30 (blue and dark red). Only in a few cases do points fall below the line. Interestingly one blue point with a flow rate of about 80 gives an example of a very fast time with moderate flow. Both official and unofficial records seem to have been set with both high flow and high wind, but if the data is to be believed a flow rate of around 80 would give the right crew a sporting chance with a following wind.



DW is a challenge for all, the DW race is open to all and probably has more trophies for different groups than any other race or type of race. Its willingness to welcome everyone from world champions to new starters is probably its most endearing characteristic. Kayaking is also a sport for all ages and the DW has over the years accepted limbless, blind and disabled paddlers to take on the elements. Paddy Ashdown may feel only Christ had a worst Easter than he did but many people come back year after year, sort of an annual fitness test. Are you up for it.

About the author: John Ince has completed DW 11 times between 1972 and 2007. He is also responsible for the DW Results database found at http://www.dwrace.org.uk/results/main.html.