THE EFFECT OF WIND ON ACOUSTIC TARGET SYSTEMS

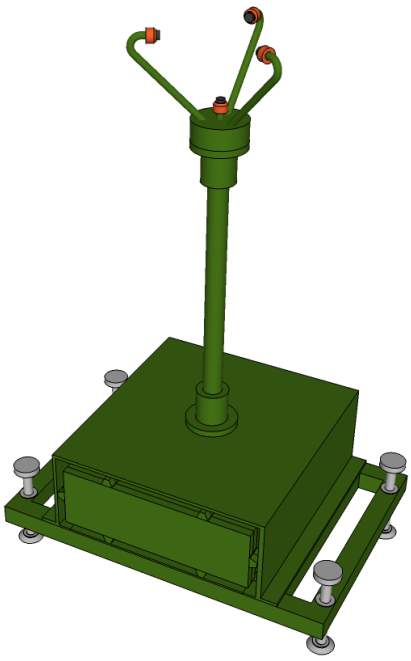
The problem with the wind is that it is not usually constant, It gusts and changes direction. If there is a constant crosswind across a target while a group of shots is fired over the target the shots will be displaced to one side but the group size will be substantially the same as if there were no wind.
We have a formula we have developed by experience over 25 years as a result of trials conducted over a 2 by 2 metre target:

E = W x 2.5 + 5

Where E is the mean radial error of a group of 30 rounds in mm, W is the average wind speed in m/s.
However, the higher the shot over the target the greater the effect the crosswind will have on the shock wave from the projectile. So a tight group of shots will be less affected than a wide dispersed group of shots in terms of group size.

Crosswind (m/s)	Error (mm)
1	7.5
2	10
3	12.5
4	15
5	17.5
10	30

While the accuracy of the MSI acoustic targets can be up to 2mm indoors, outdoors the wind has a significant effect. This effect can be reduced by measuring the crosswind at the target and performing a correction for each shot based on the wind at the time of arrival of the shot cone. To do this the system requires the addition of one or more wind measuring device such as those shown below.



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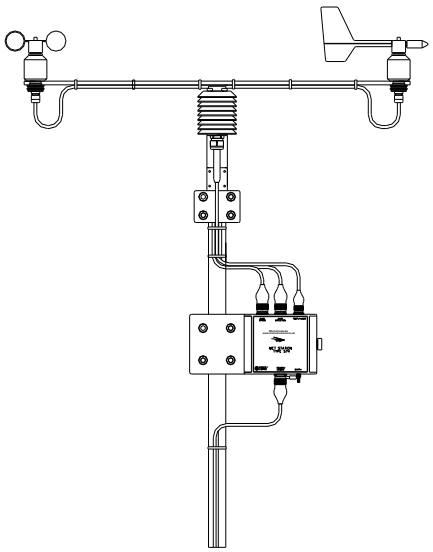

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