## heights

For my own sanity, I try here to document all the heights so far:
(These are now updated with the array 4 values. Not all of these make sense [different measurements when things weren't moved]. I'm working now to resolve them.)

| Array: | $\begin{aligned} & 1 \\ & \text { sonic } \end{aligned}$ | AGL* | $\begin{aligned} & \mathbf{1} \\ & \text { TRH } \end{aligned}$ | AGL | $\begin{aligned} & 2 \\ & \text { sonic } \end{aligned}$ | AGL | $\begin{aligned} & 2 \\ & \text { TRH } \end{aligned}$ | AGL | 3 sonic | AGL | $\begin{aligned} & 3 \\ & \text { TRH } \end{aligned}$ | AGL | $\begin{aligned} & 4 \\ & \text { sonic } \end{aligned}$ | AGL | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ref (AGL) | +0.055 | $\begin{aligned} & 1.52 \\ & (1.53) \end{aligned}$ | 1.52 | -0.37 | +0.05 | 1.76 | -0.37 | 1.76 | x | 1.61 | x | x | -0.027 | 1.65 | x |
| "8m" | 6.475 | 8.05 | 6.855 | 8.005 | - | - | - | - | 6.468 | 8.128 | - | - | 6.508 | 8.063 | 6.8 |
| "7m" | 5.505 | 7.08 | 5.855 | 7.005 | - | - | - | - | 5.544** | 7.204** | - | - | 5.582 | 7.137 | 5.81 |
| "5.5m" | 3.955 | 5.53 | 4.315 | 5.465 | 3.99 | 5.80 | 4.43 | 5.82 | 4.256 | 5.916 |  | 5.845 | 4.286 | 5.841 | 4.7 |
| "4m" | 2.665 | 4.24 | 3.08 | 4.230 | 2.90 | 4.71 | 3.33 | 4.72 | 3.316 | 4.976 |  | 4.884 | 3.352 | 4.907 | 3.7 ، |
| "3m" | 1.725 | 3.30 | 2.105 | 3.255 | 1.96 | 3.77 | 2.36 | 3.75 | 2.110 | 3.770 | - | - | 2.140 | 3.695 | 2.5 |
| "1.5m" | -0.02 | 1.55 | 0.355 | 1.505 | - | - | - | - | -0.026 | 1.634 | - | - | 0.000 | 1.555 | 0.3 |
| top | 2.66 | 4.25 | x | x | 2.91 | 4.72 | x | x | 4.260 | 5.920 | x | x | x | 8.060 | x |
| bottom | 1.66 | 3.25 | x | x | 1.91 | 3.72 | x | x | 3.262 | 4.922 | x | x | x | 7.062 | x |
| upwind | $\begin{aligned} & \text { 2.17->1. } \\ & 67 \end{aligned}$ | 3.75->3.25 | x | x | 1.92 | 3.73 | x | x | 3.254 | 4.914 | x | x | x | 7.062 | x |

*3/18/09, TWH added the height of the sonic measurement volume above the top of the boom $(5.5 ? \mathrm{~cm})$.
**Note that the 7 m sonic was moved up "about $4-5 \mathrm{~cm}$ " on Aug 3 at 09:41 (see logbook entry)
"-" means shouldn't have changed from last
" $x$ " means value not needed
TRH at " 5 m " and " 4 m " were moved between array 2 and array 3 , but measured during array 4 .
final values to be used in bold
ref4 was 0.040 m above ref3, but for the profiles, the reference was the top of the lowest sonic boom, which was 0.027 m below ref3.

