(Final) sonic tilts

Normally we do not use data at wind directions of +/- 45 degrees from 180 (in sonic coordinates), in order to eliminate winds blowing through the tower and into the back of the sonic. However, because of the topography at RIM, I used data at +/- 60 about the nominal axis of the gap, SSW or 202.5 deg. The tilt plots are done with respect to the sonic u axis, which was pointed to 253 degrees. Thus in instrument coordinates, the acceptable data is from -10 deg to 110 deg.

Also at RIM, there is a systematic descent of air into the crater, i.e. a vertical flow normal to the "surface". I find more realistic lean angles by setting w.off = 0 and use the latter results in the RIM cal_files.

sonic	lean (deg)	leanaz (deg)	w offset (cm /s)
3m.near	0.6	-3.2	-2
10m.near	1.0	9.9	-2
15m.near	0.5	43.2	0
20m.near	0.6	27.8	-1
25m.near	1.0	79.1	-1
30m.near	0.7	38.1	-2
35m.near	0.7	112.2	-2
40m.near	0.6	96.2	1
45m.near	1.1	33.7	-1
50m.near	0.8	34.0	0
5m.rim	1.3	-91.2	0
10m.rim	2.2	-122.7	0
15m.rim	1.7	-107.5	0
20m.rim	1.4	-109.7	0
25m.rim	1.1	-119.2	0
30m.rim	1.4	-126.2	0
35m.rim	1.2	-101.4	0
40m.rim	2.4	-110.8	0
3m.far	1.1	-31.8	-2
3m.flr	0.7	162.1	-3
ssw2.flr	10.1	-59.0	3
ssw4.flr	30.5	-38.2	-5