

Post-windstorm BMX dish inspection

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April 22-27, 2020

Summary

- On Wed 4/22 (Earth Day) PWS+POC made short (3-hour) authorized visit to BMX basin to inspect and re-align dishes
- Judging by informal grime marks on platforms, all dishes had been visibly displaced; all shifts were in inward (ie toward central tower) direction, suggesting wind lifts dishes from the back
- Worst case was west dish, slid off platform and crashed into tower; least change case was south dish, moved by a few inches
- Dishes were all dragged back to nominal positions, measured from tower pillars and aligned to horns by eye
- All dishes now fixed down by small wooden blocks screwed into platforms at two locations
- West dish reflector smoothed out somewhat; frame significantly bent but should be repairable; current state may be workable for mid-term

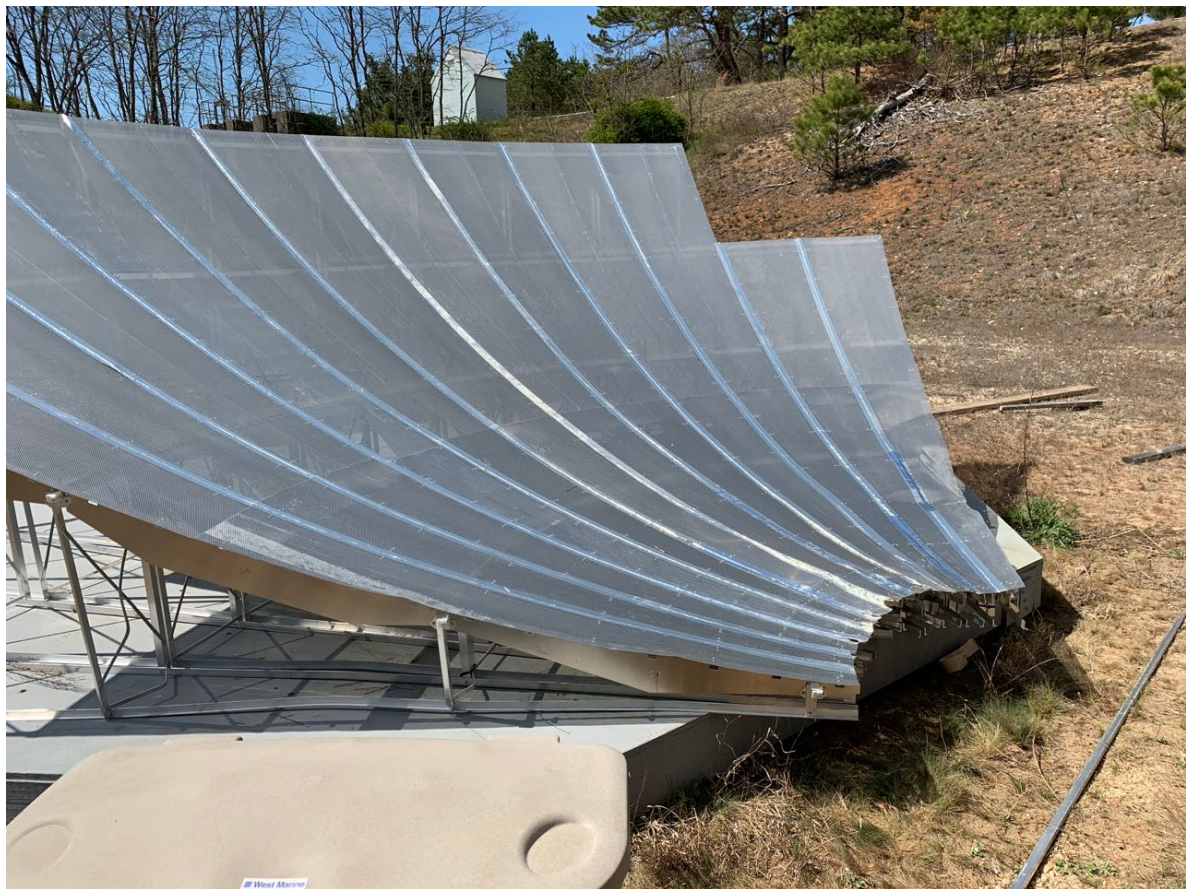
West dish before re-alignment



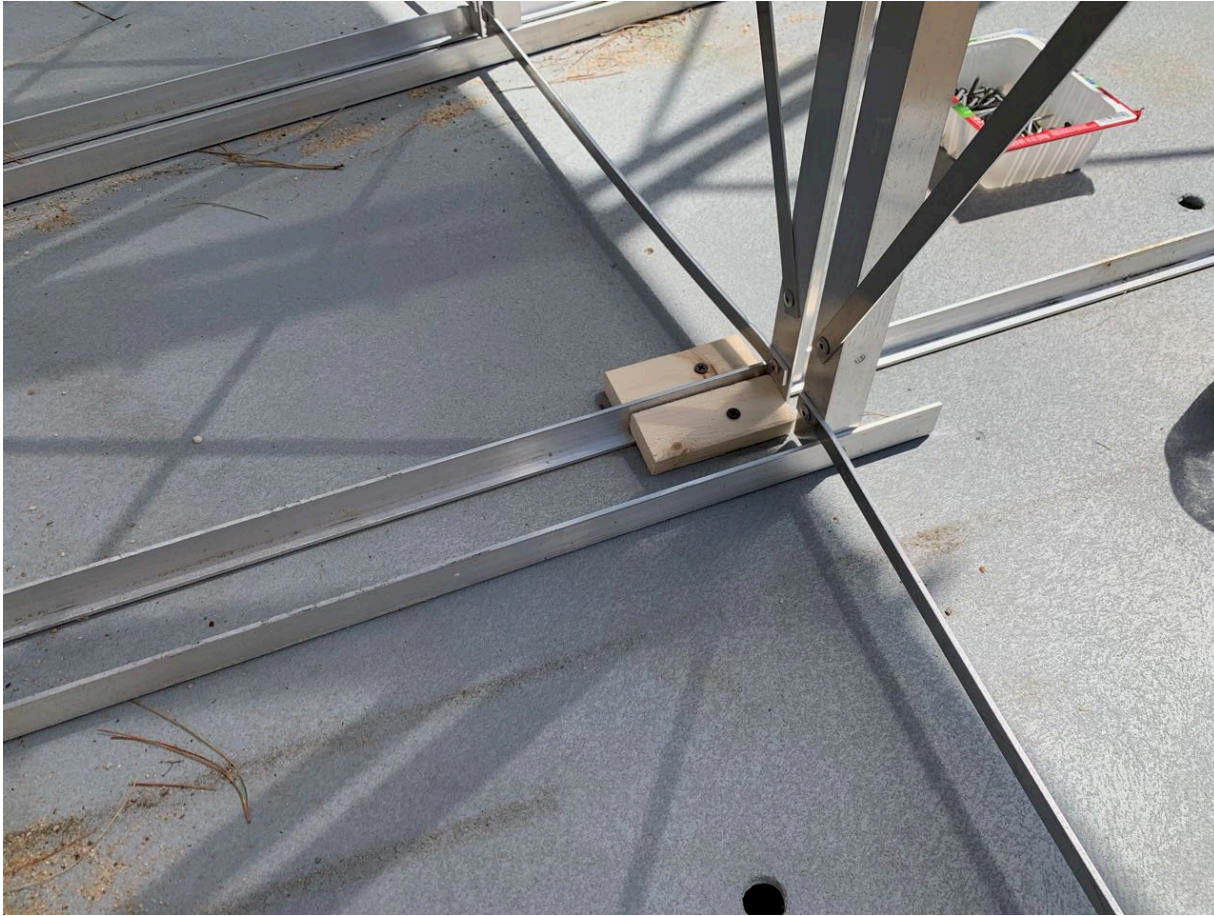
West dish front close-up



West dish after re-alignment & smoothing



New wood block tie-downs



RF tent looks OK



Longer-term/final alignment plans

- We have survey markers denoting “phase center” on north horn; ideally this 3-D point should be at focus of paraboloid
- (1) Transfer phase center survey to all horns
- (2) Design, build and install “side horns” to extend survey point sideways from horn, to clear way to drop two plumb lines down on either side; could probably be 3-D printed.
- (3) Adjust hexapod links to get all horns to correct height relative to platform top/dish base, and at nominal angle
- (4) Adjust dishes relative to plumb lines, center on phase center