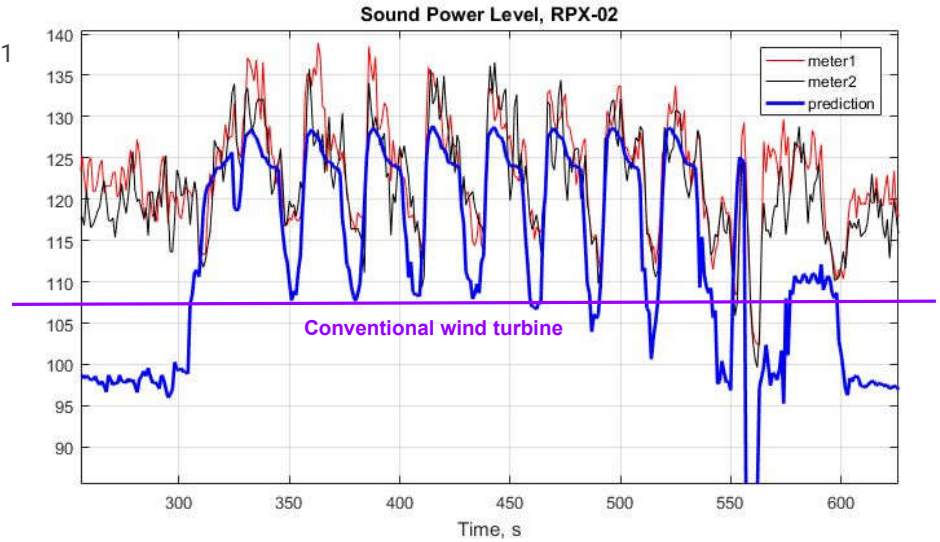
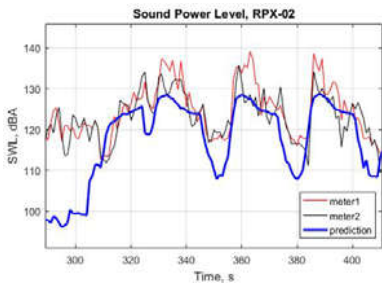


## RPX-02 Noise Kite Measurement and Correlation

- Noise Measurement Deck
- Measurements conform to IEC 61400-11 standard
- Predictions from lookup table based on axial velocity and omega for each rotor using Xrotor noise module



Crosswind detail

## RPX-02 Noise Kite Measurement and Correlation

- Frequency content in 1/3 octave bins
  - denoted by the vertical lines
  - 9 seconds per measurement
- 40/rev shows up when all rotors are synced (i.e. just before takeoff at 30 rad/s)
- Otherwise peaks at 5/rev and 10/rev
- More higher-frequency (>600 Hz) content than expected, even in hover
- Too coarse in time and frequency bins
- Need calibrated audio signal for next test
- TODOs
- Correlate Xrotor-predicted frequency content, process to 1/3 octave bins as well
- Process video camera audio from RPX
  - Won't be calibrated, but will be finer in time and frequency resolution... might learn something
- Set up calibrated audio signal measurement for RPX-03

