Honeycomb Parameters

In the summer of 2019, two new honeycombs were installed on the shelf of the wind flume.

The honeycomb was ordered from *PLASCORE* with the following parameters:
ALSLICE ALUMINUM HONEYCOMB
PCGA-XR2-1.2-1/0-30-P-3003
70 X 1524 X 2000 [mm^3]

- Perforated core
- Expanded Sheets
- XR2 corrosion coating is a chrome-free clear protective film
    - cost was 837.34 USD for **two** sheets, including shipment, **NOT** including tax.

The honeycombs were glued on to aluminum frames (80 [mm] depth) and placed in two locations:

- Upper honeycomb:
    - roughly 31 [cm] height
    - roughly 100 [cm] from wind inlet
    - tilted forward roughly 8 [deg]
    - held into place by two bolts and two 90 degree angles that were drilled into the shelf
- Lower honeycomb:
    - roughly 58 [cm] height
    - roughly 175 [cm] from wind inlet
    - has two main vertical positions:
        - straight (i.e. STR)- positioned vertically relative to water surface
        - angled (i.e. ANG)- positioned forward to roughly 8 [deg]
    - held into place by two bolts and two 90 degree angles that were drilled into the shelf

Measurements

On July 16-17 2019, measurements of instantaneous water surface fluctuations were performed with the following parameter changes:

- blower frequencies (20, 30 & 40 [Hz])
- fetches (450 & 1100 [cm]) from the **upper** honeycomb
- vertical position of the **Lower** honeycomb (STR & ANG)

All measurements were performed by 3 consecutive wave gauges (WG) with a sample frequency of 80 [Hz] and measurement time of 6,000 [sec]. The surge distances between the WG were:

- 2.1 [cm] between WG1 & WG2
- 11.8 [cm] between WG2 & WG3

Analysis