

# **Optimizing Outside Pressure Taps To Reduce Wind Induced Pressure Errors**

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**AIVC Airtightness Workshop**

Washington, DC

April 18, 2013

## **No Improvement in 30 Years?**



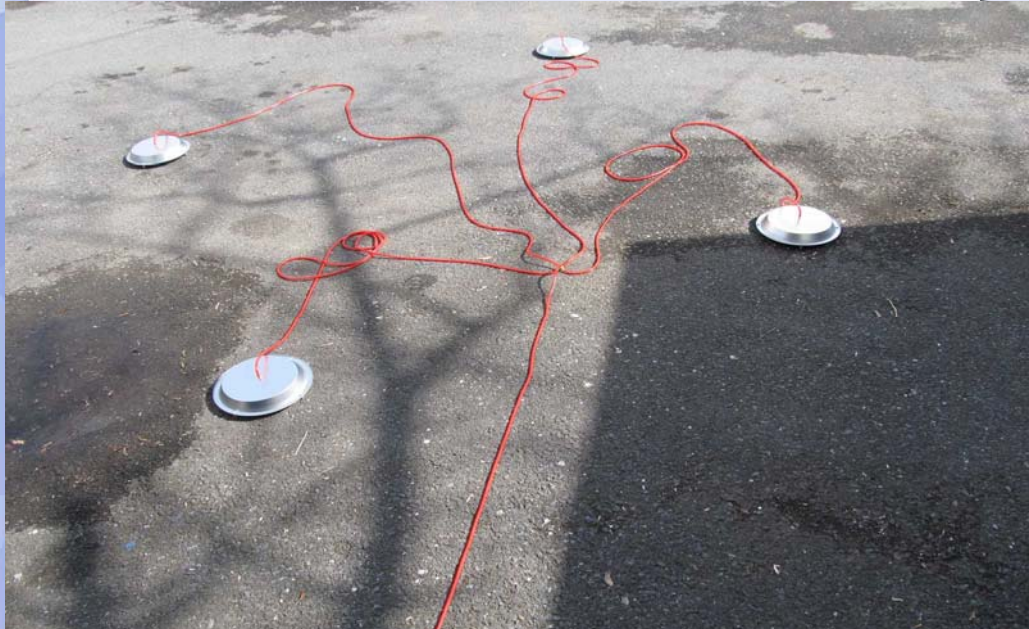
## A New Idea from Greenland?



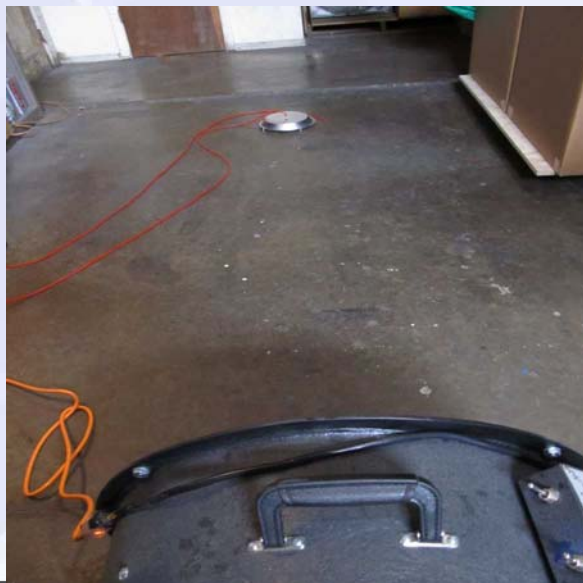
## Inverted Pie Plate With Leas



## Pie Plate Array



## Test Method for Outside Tap

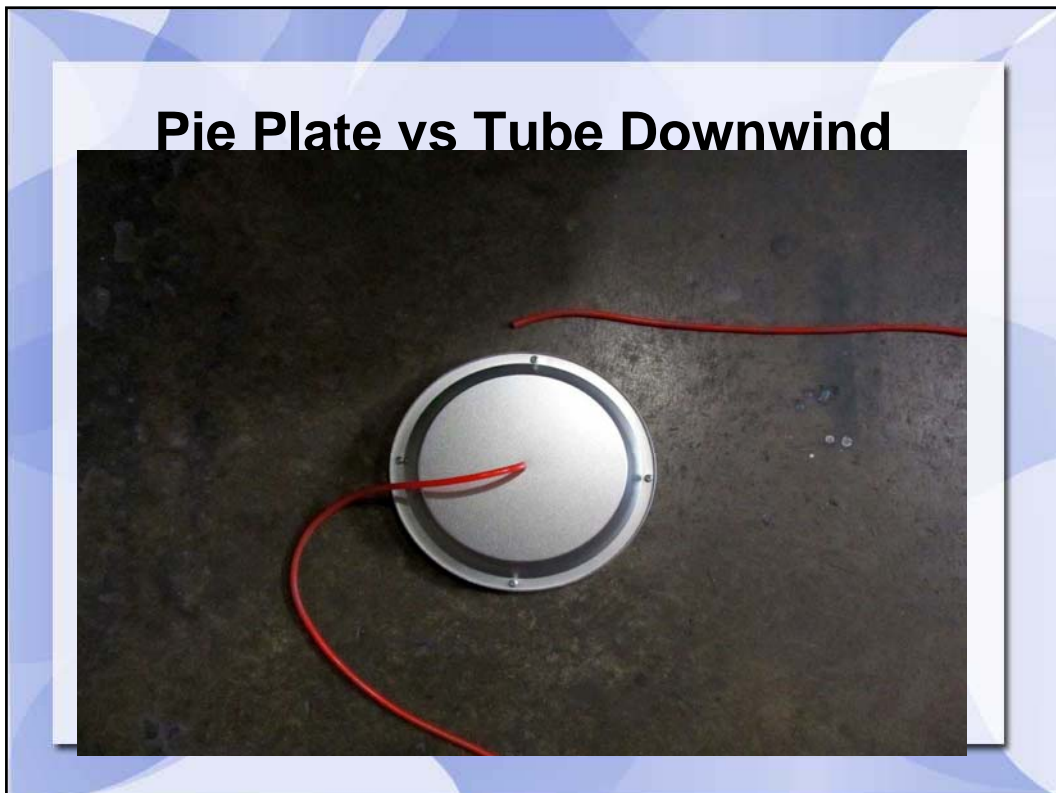
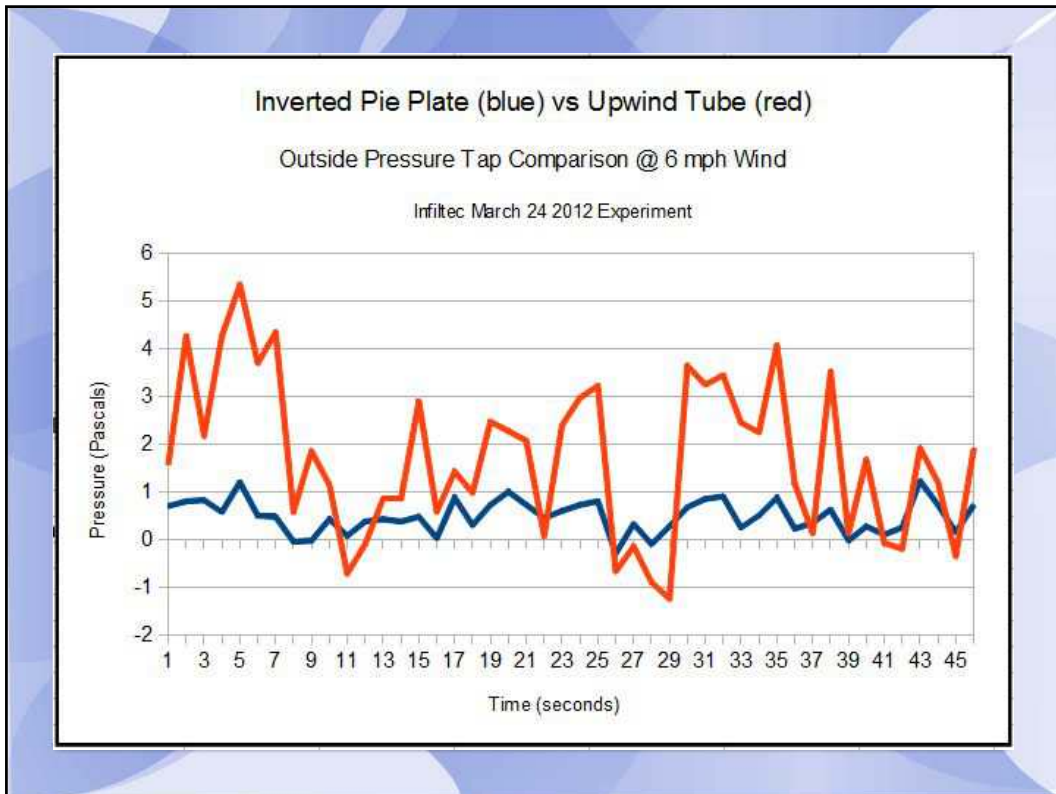


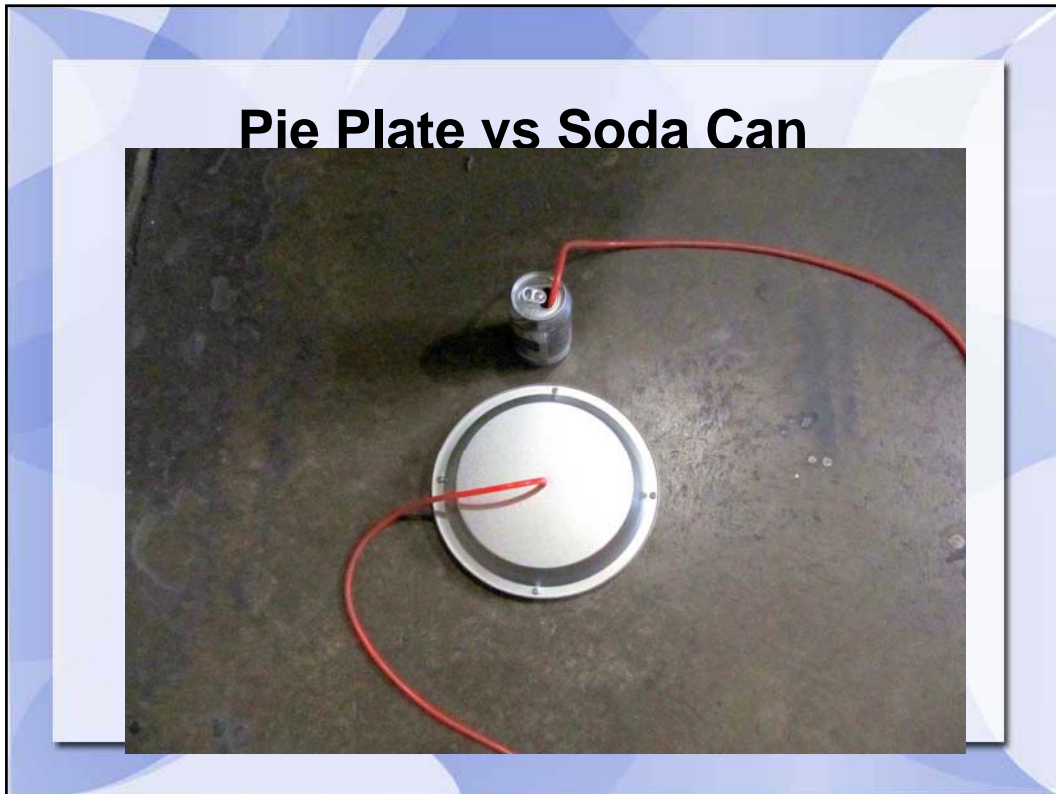
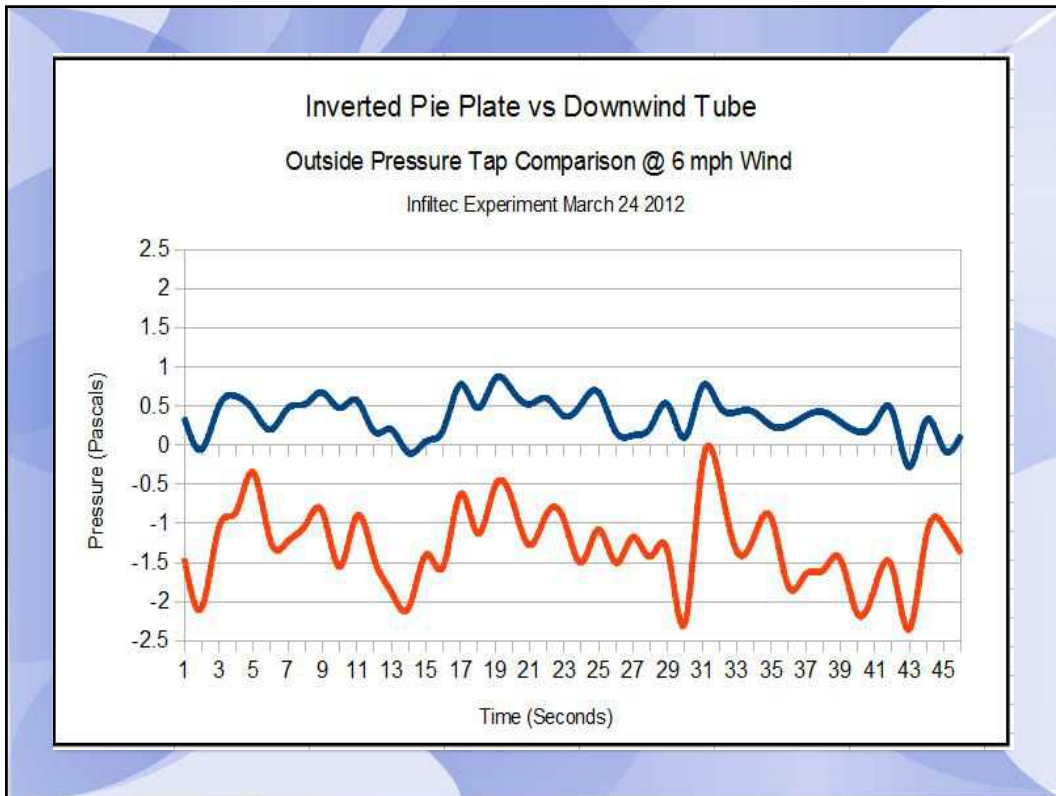
## Pie Plate vs Updwind Tube

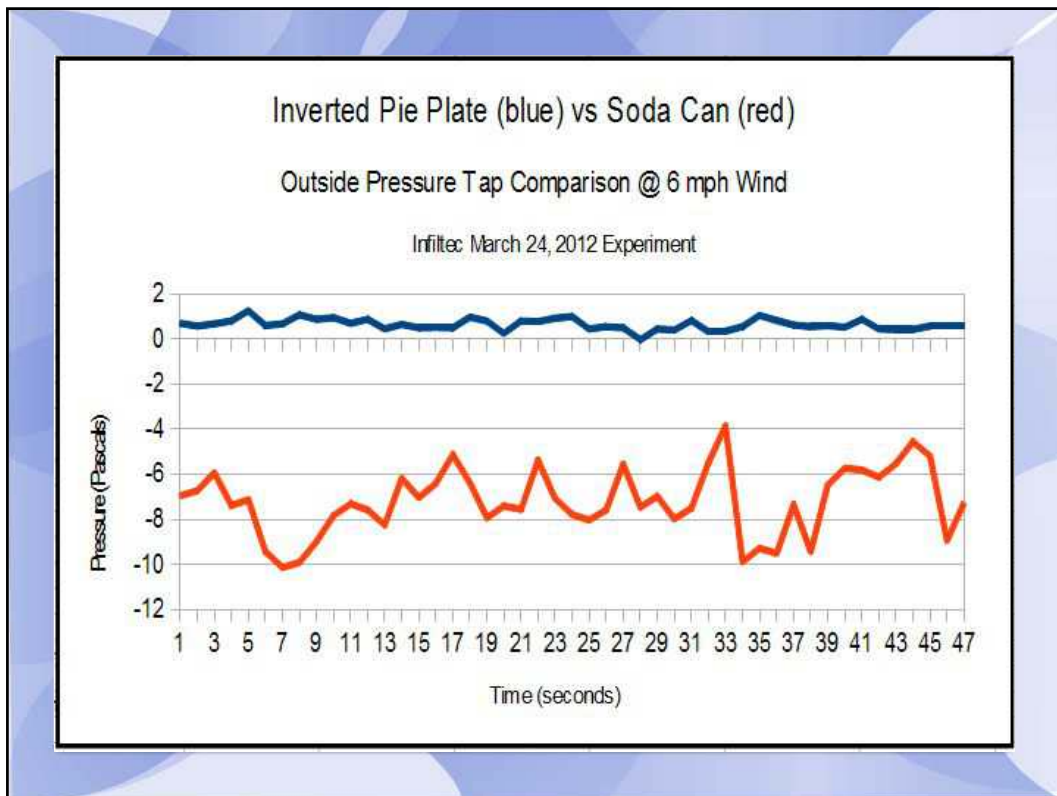


## Outside Tap Test Parameters

Requires 20 ft x 6 ft inside area      Fan  
blows 9 ft toward Taps  
Fan inlet is at least 6 ft from wall  
Taps are 6 ft downwind from wall  
Fan set to 2900 cfm free flow  
Wind at Taps approximately 6 mph  
Manometer reference ports open







## Conclusions

- \* No Soda Cans!
- \* Tap must be omnidirectional
- \* Tap must be at ground level
- \* Spatial Averaging with multiple taps
- \* Standards should specify tap
- \* Need more study of other taps

