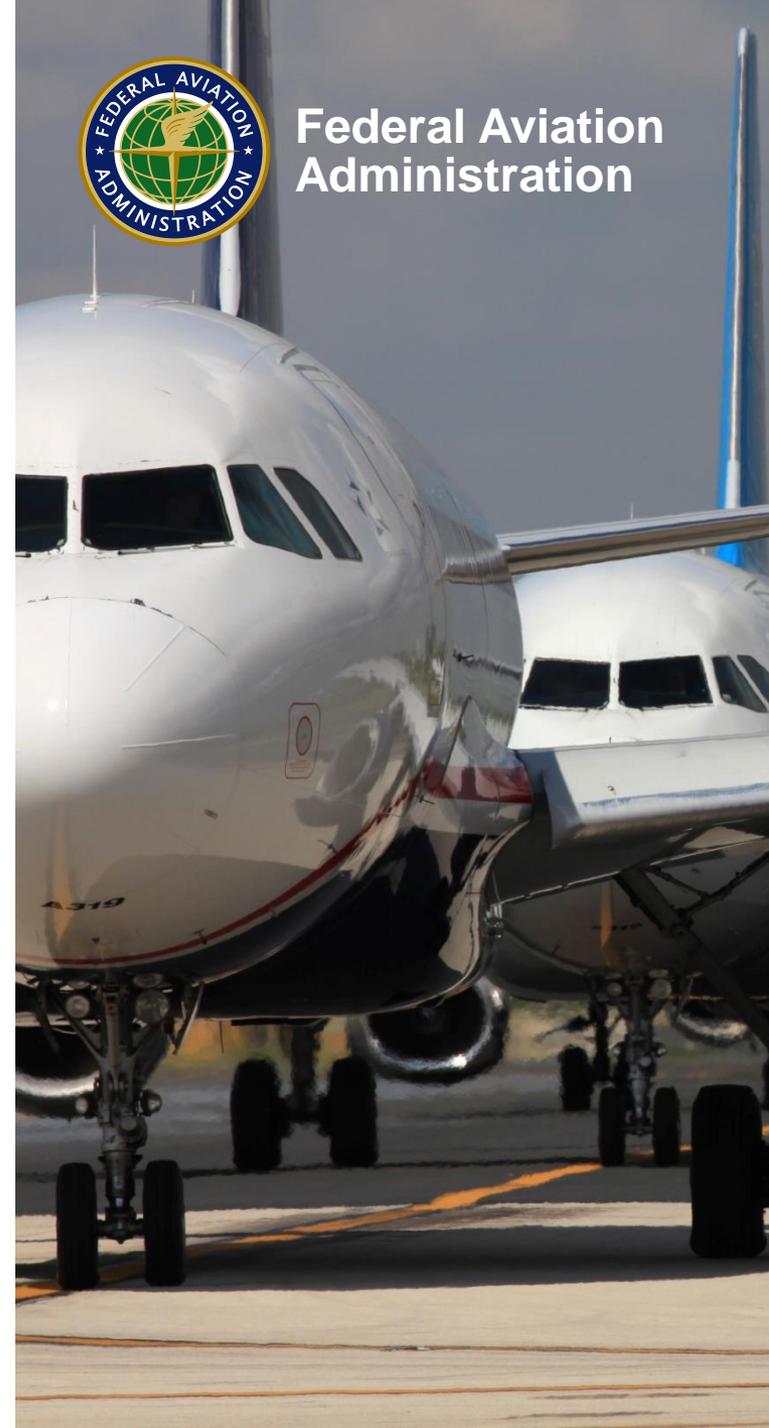


Radiant Panel Update

Presented to: International Aircraft Materials Fire
Test Working Group Meeting
By: Steven Rehn
Date: 06/03/2015



Federal Aviation
Administration



Since the February Meeting

- **Sent out new survey to get more accurate dimensions for the workbook chapter**
- **Training Video**
- **Workbook Changes**
- **Round Robin**



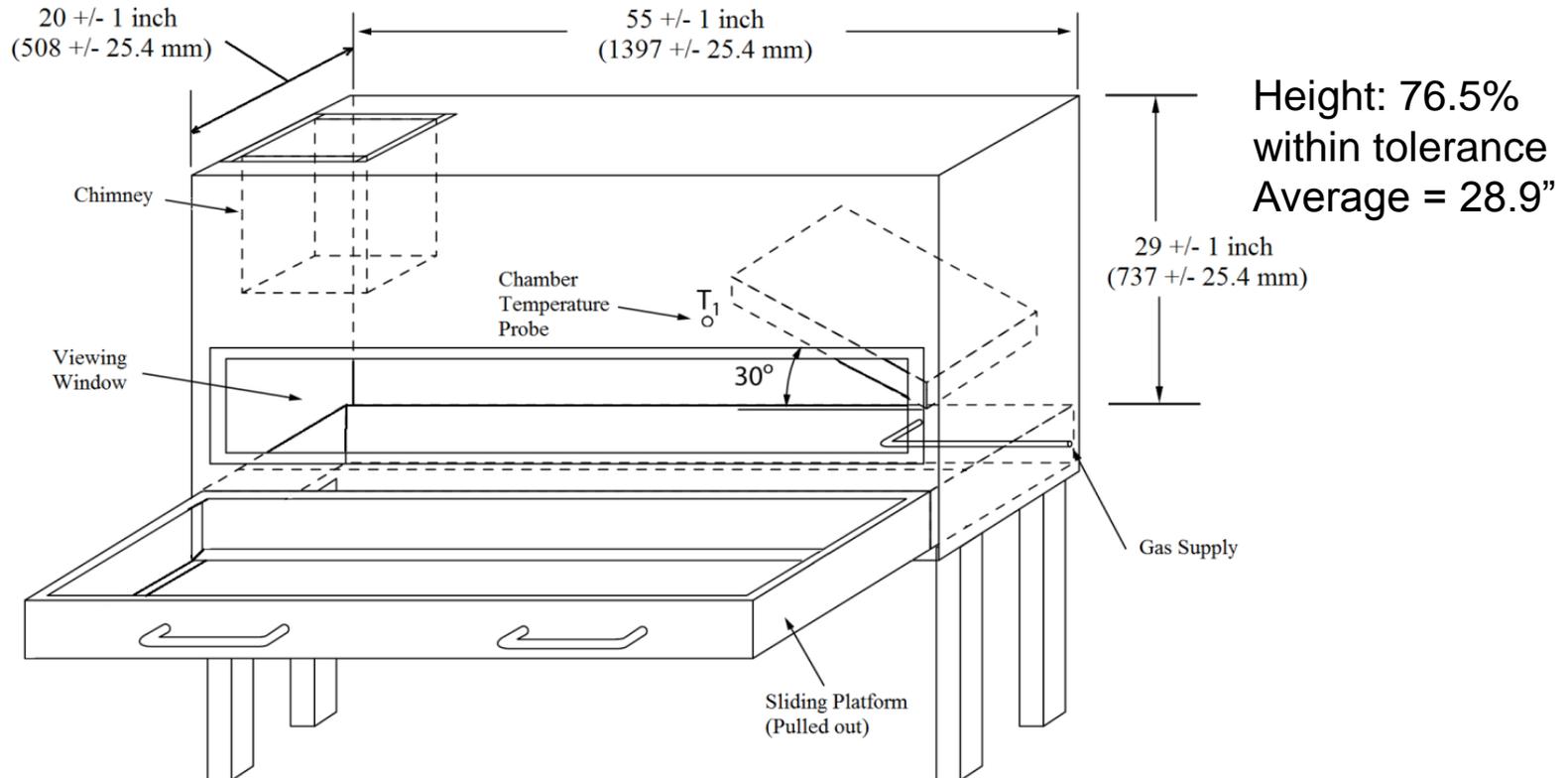
Survey Results

- **Simple survey to get the dimensions of every lab's radiant panel in order to make the workbook as accurate as possible**
- **12 Responses + FAA's data**
- **Plus 6 (incomplete) responses from last survey**
- **Dimension data from 19 labs**

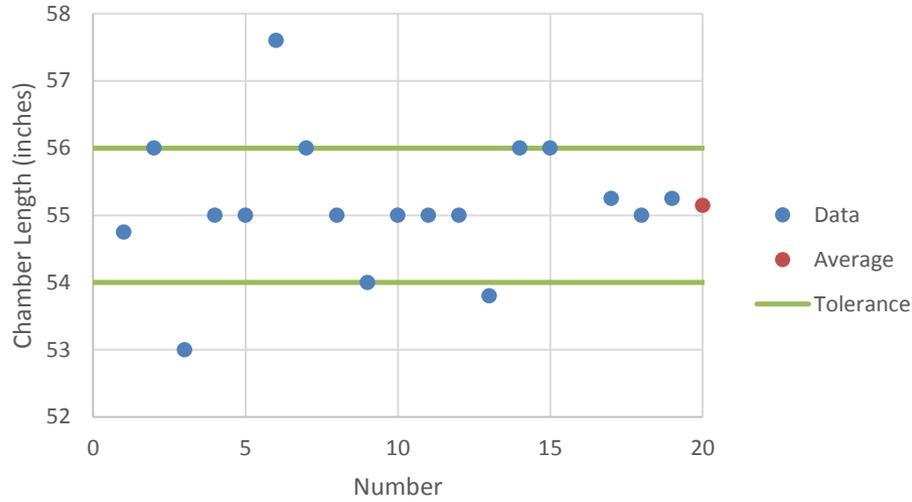
Survey Results

Width: 88.2% within tolerance
Average = 19.7"

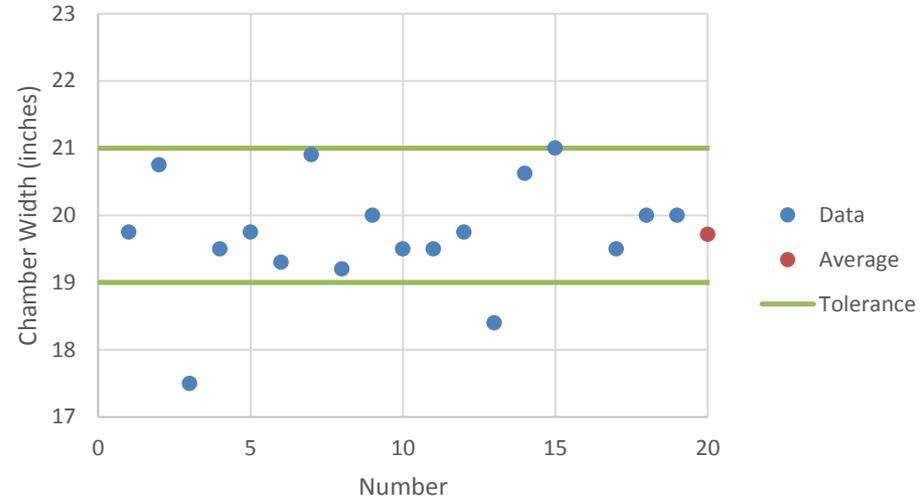
Length: 82.4% within tolerance
Average = 55.1"



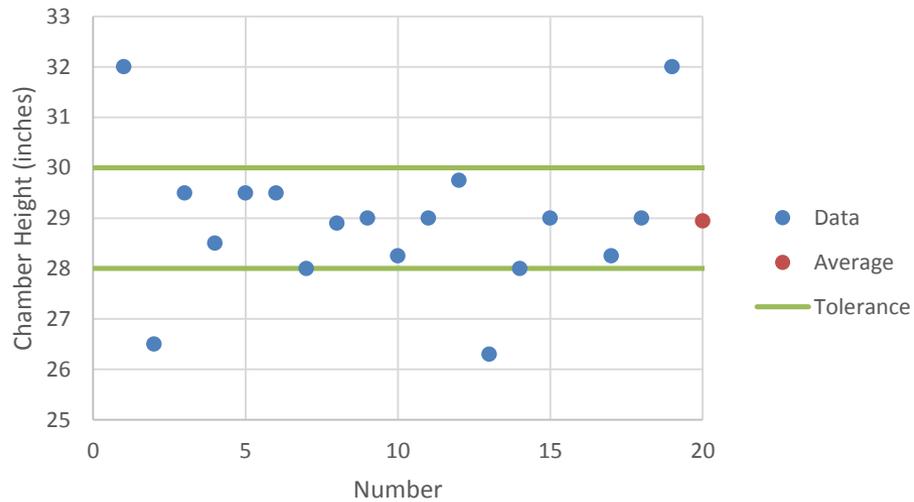
Chamber Length: 55±1"



Chamber Width: 20±1"

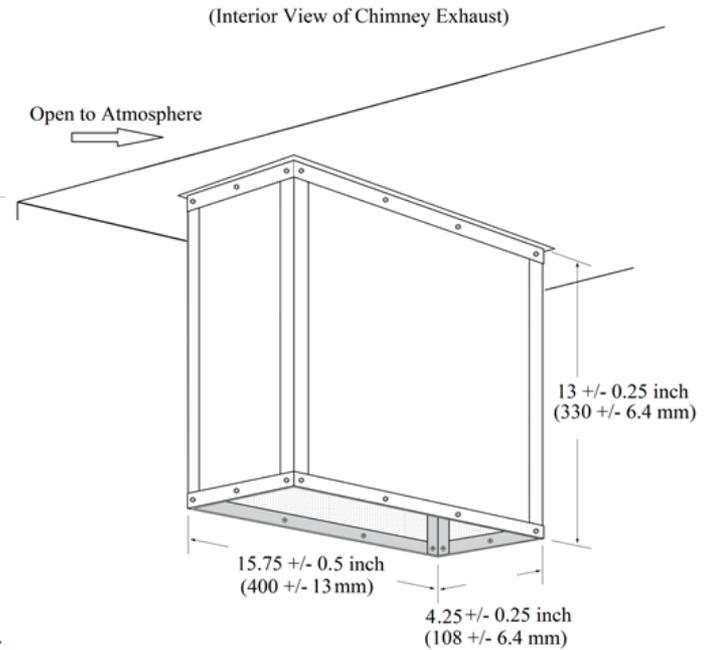
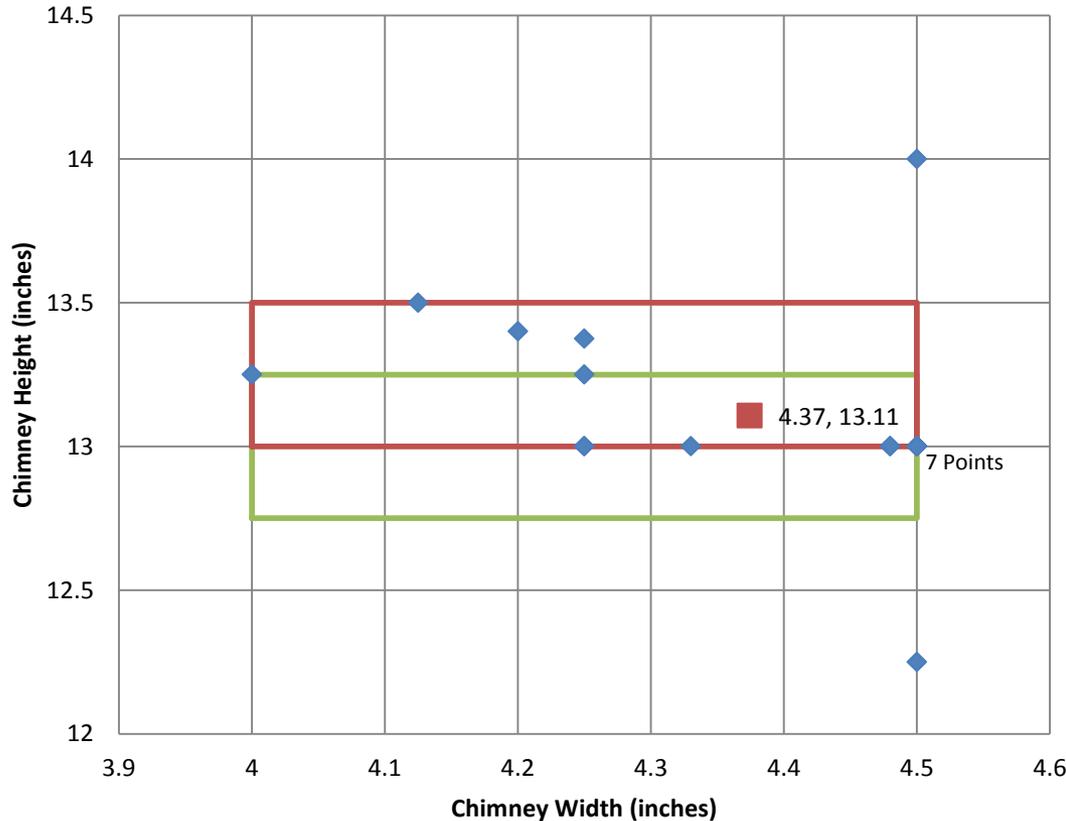


Chamber Height: 29±1"



Survey Results

Chimney Width and Height



- ◆
- Average
- Tolerance
- New Tolerance

- Change chimney height tolerance from $13 \pm 0.25''$ to $13.25 \pm 0.25''$

Survey Results

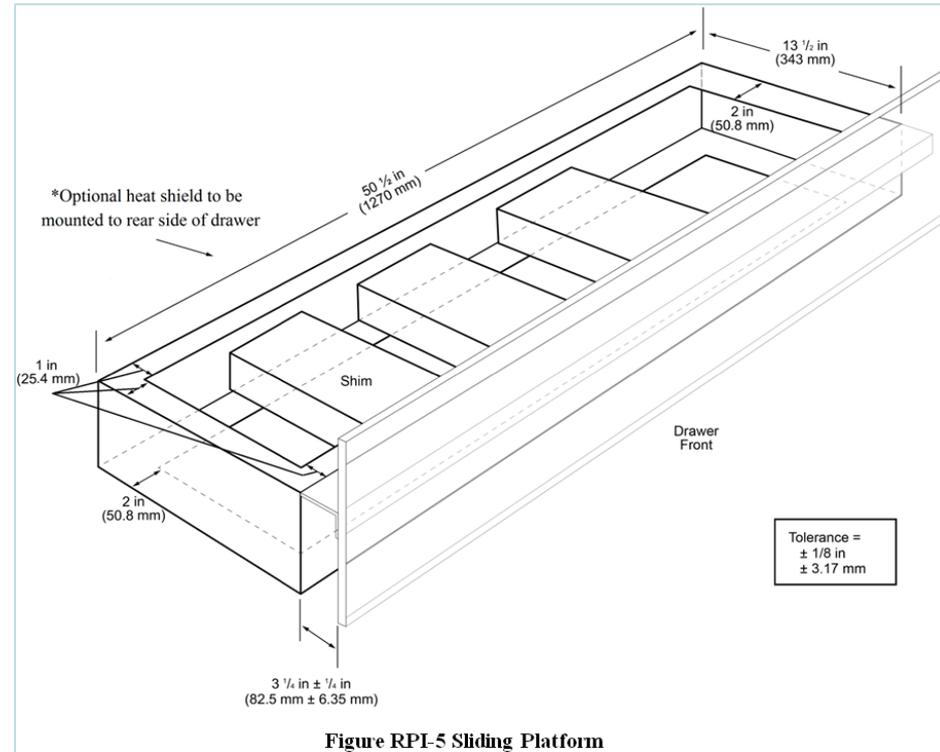
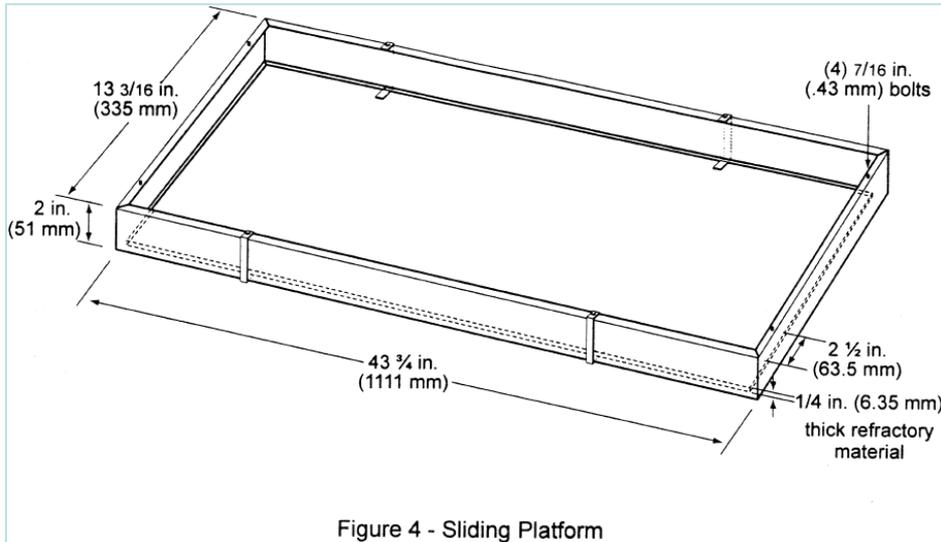


- Change zero position tolerance from $4.375 \pm 0.25''$ to $4.5 \pm 0.25''$

Drawer Change

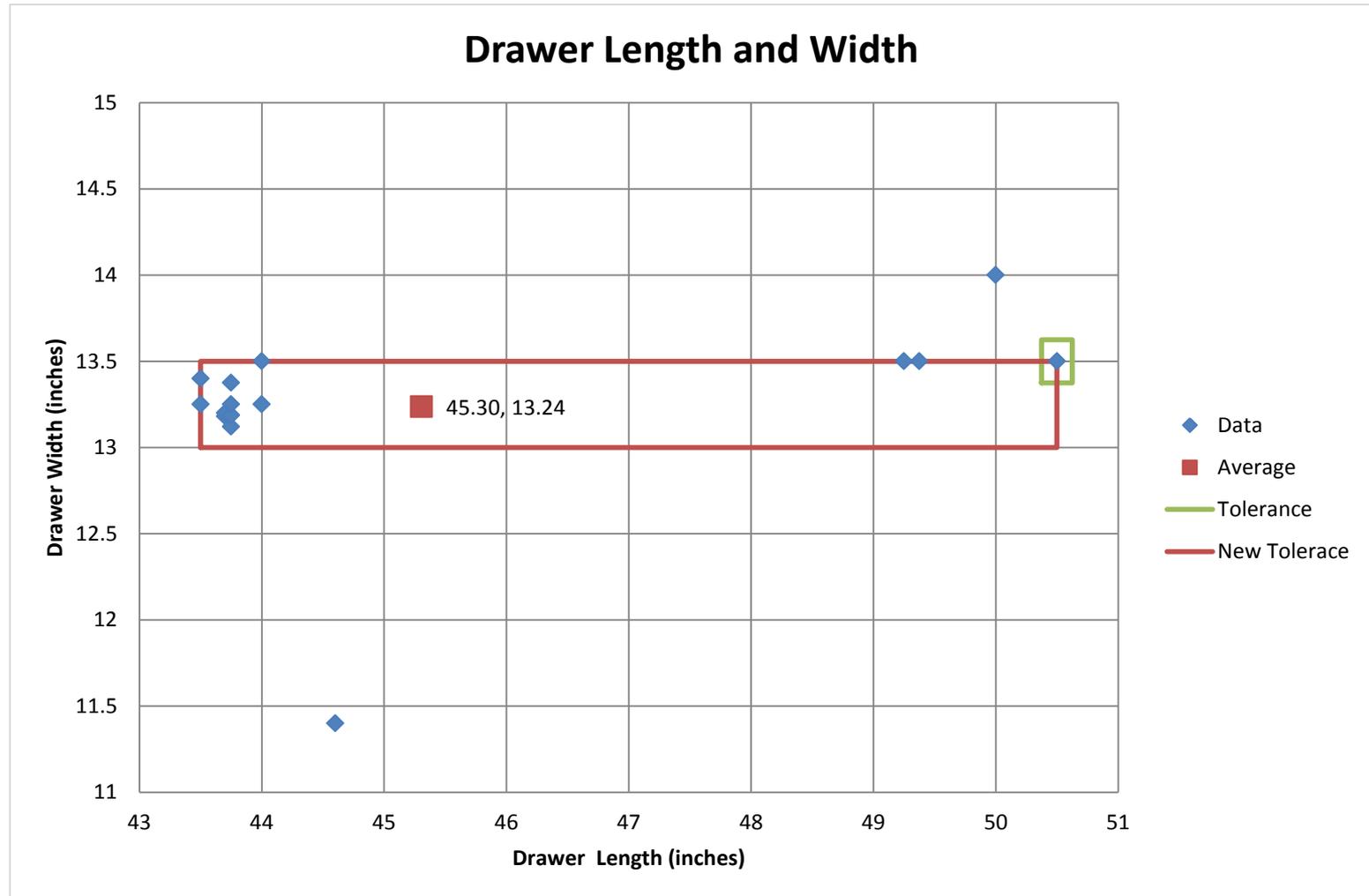
New Drawer

Old Drawer



- Bigger drawer almost fills out entire width of the chamber
- Doesn't allow as much air-flow around drawer while testing

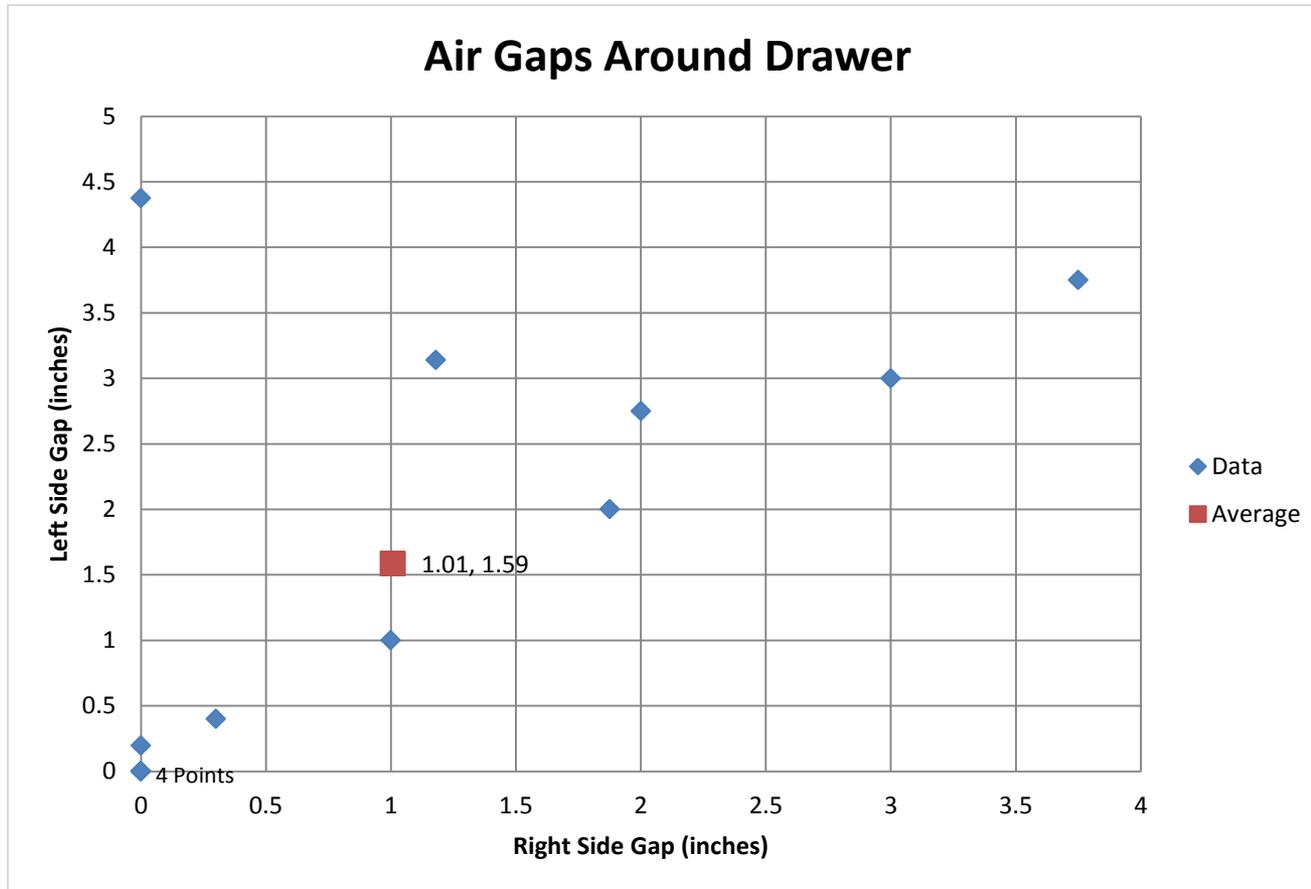
Survey Results



Workbook Change

- **Original ASTM floor tester that this test was based on specified an open area around the drawer of 356 to 500 in.²**
- **Specifying an open area for this test would solve air-flow problems without requiring every lab to have the exact same drawer size**

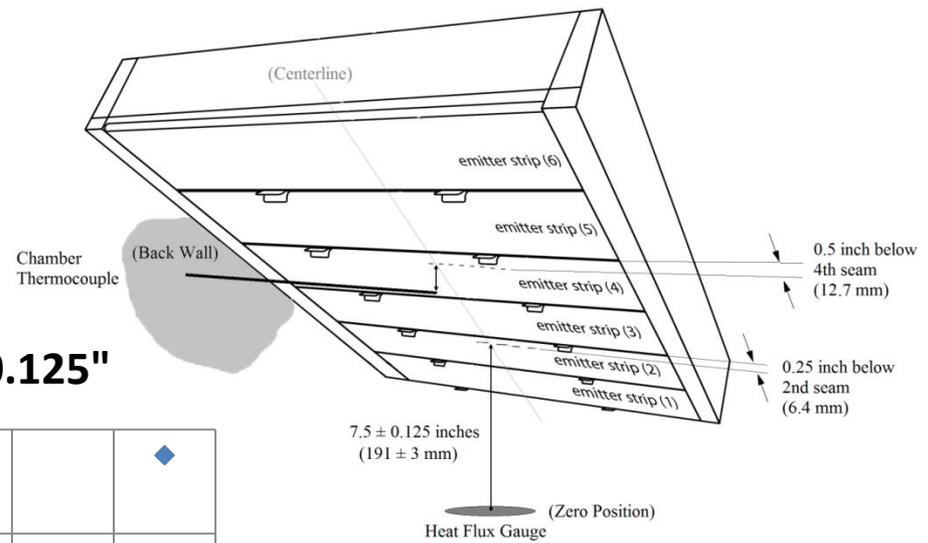
Survey Results



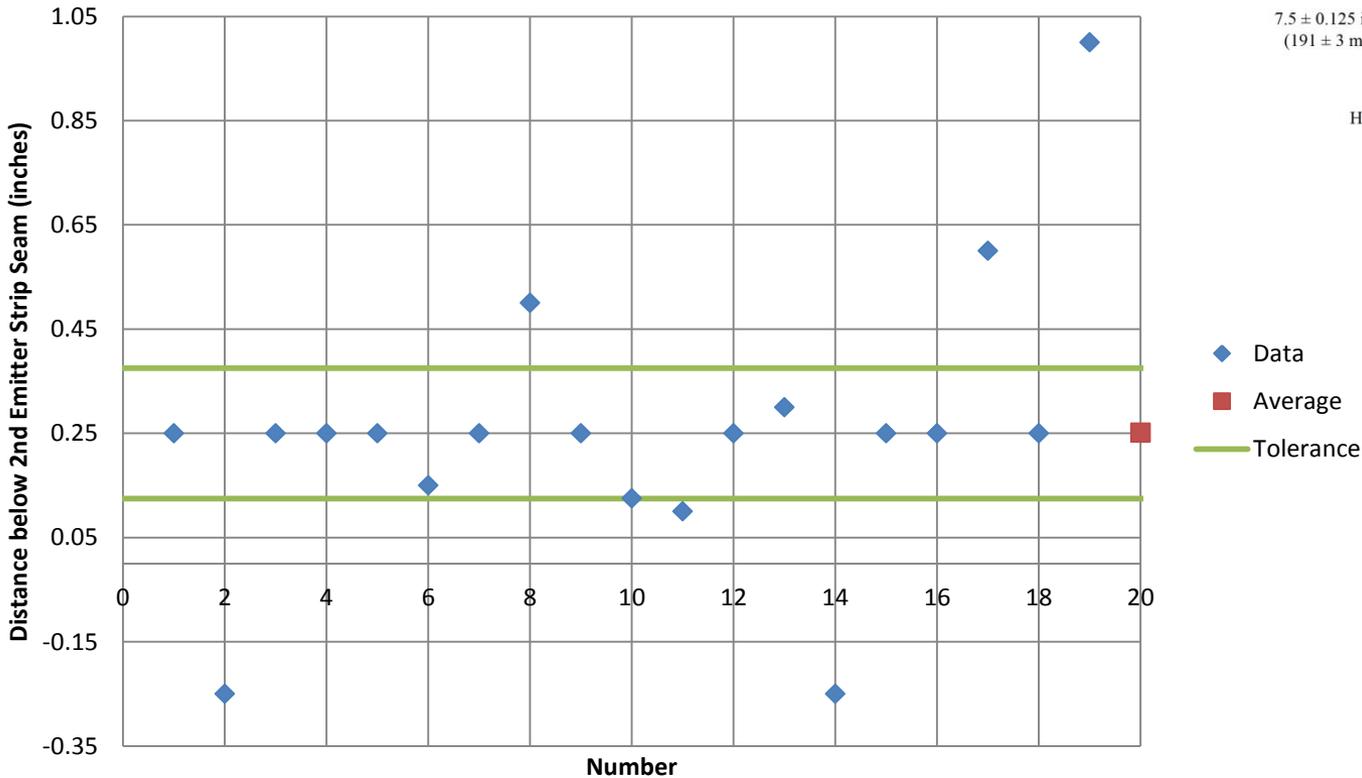
Average opening behind drawer = 1.9375" (2 labs)

Total average open area = 145 in.²

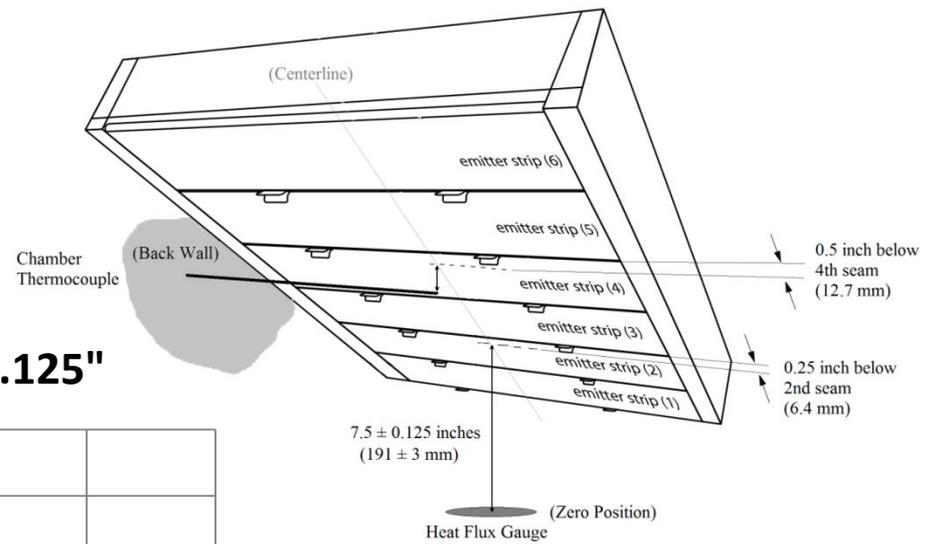
Survey Results



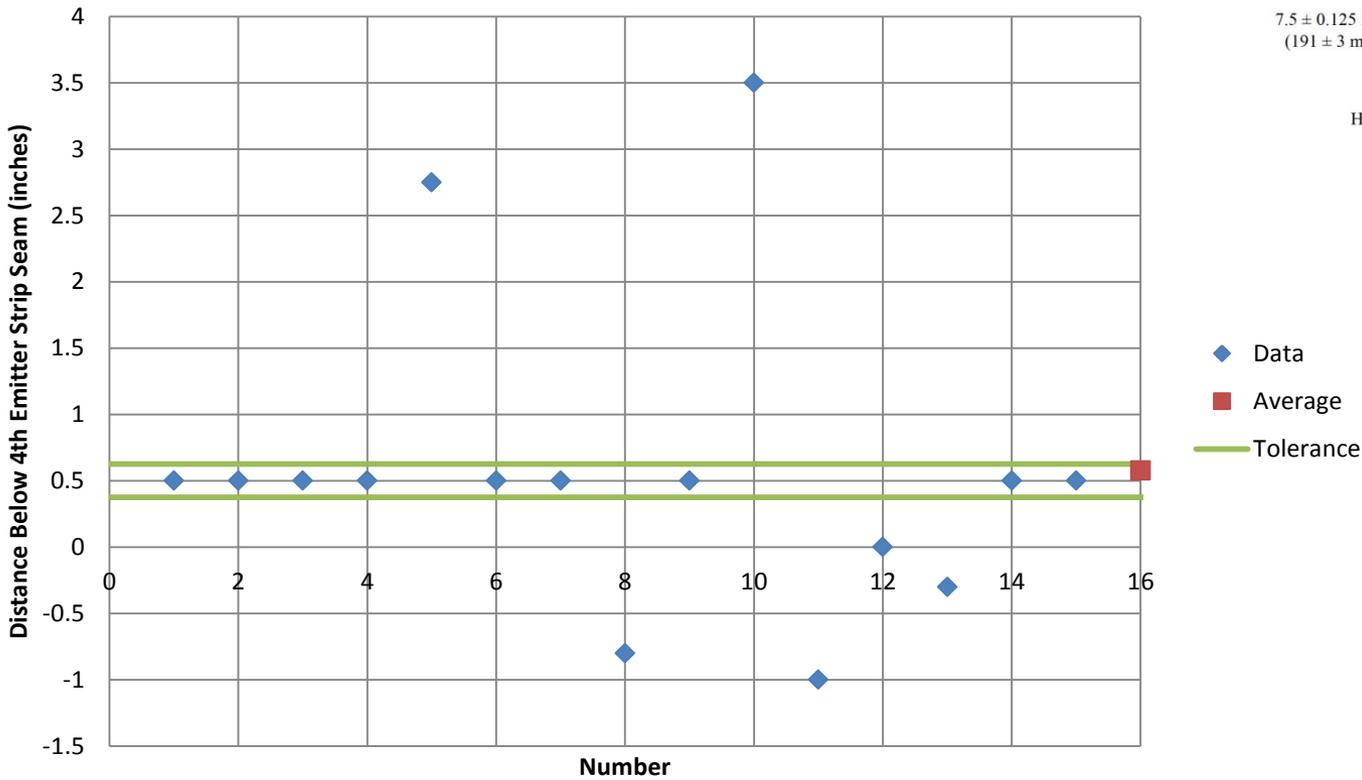
Radiant Panel Position: 0.25 ± 0.125 "



Survey Results



Thermocouple Position: 0.5 ± 0.125 "



Training Video

- **Purpose of the video is to help make the test procedure more consistent across all labs and to help new labs**
- **2nd draft has been made**
- **Re-shoots were delayed because the video production group was booked solid until mid-June**
- **Video will be sent out or posted online when completed**

Round Robin

- **Test will include all calibration data and 12 samples per lab**
- **Most of the test samples have been produced**
- **We will start sending out samples after the meeting**



Questions?

