

**Panel measurements at RPT.
Davis Earle
Feb, 1995
SNO-STR-95-12**

Contained in this report are plots of the deviations of the panels from the nominal in th. Panel dimensions were as measured by the RPT crews. These numbers have been given to SNO by Eric, the engineer in charge of the dry fit. The panels of each row are ordered as they were positioned around the dry fit. Note that the information on panel 103-12 is missing, both its dimensions and its position around the circumference.

The average deviation from nominal for each row is listed in Table 1.

Table 1.

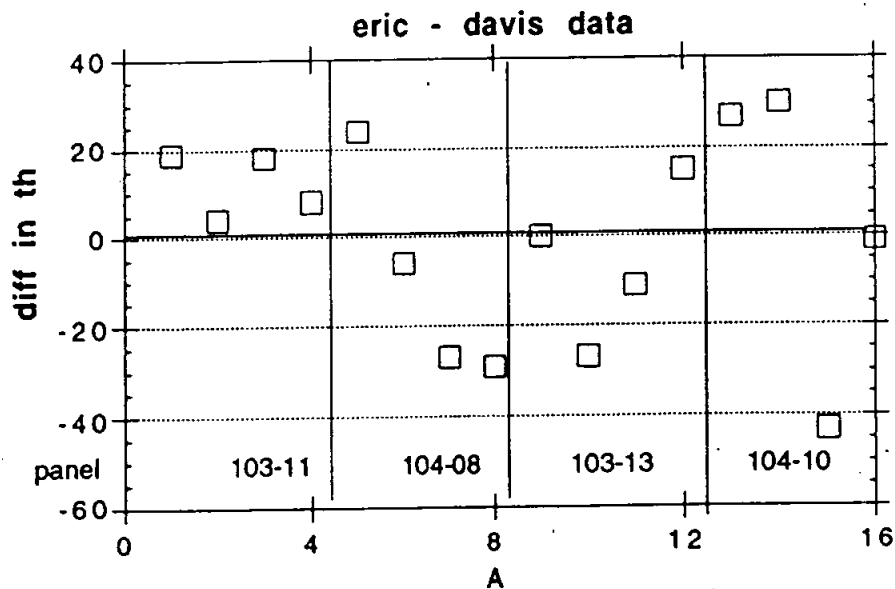
Row	height deviation average in th	length deviation average in th	
101/2	0.004	0.004	20 panels
104	-0.08	-0.057	13
106	-0.022	0.001	13
108	-.025	-0.022	11
103	-0.032	-0.022	13

In Table 2 and Figure 1 measurements Brewer and I made in Sept '94 on four panels have been compared with Eric's recent numbers on the same panels. Panel 104-10 had not been annealed before the Sept measurement and since the Sept measurement on that panel was done at 67 degs the numbers have been temperature corrected. In Sept the other three panels were measured at 71 to 73 degs and were not temperature corrected. All of Eric's measurements have been temperature corrected.

Table 2.

	Panel 103-11			Panel 104-08		
	Davis	Eric	diff. in th	Davis	Eric	diff.
T	-.067	-.048	19	-.063	-.039	24
B	-.063	-.059	4	-.108	-.105	3
R	-.066	-.048	18	-.066	-.079	-13

L	-.098	-.090	8	-.073	-.058	15
Panel	103-13			Panel	104-10	
	Davis	Eric	diff.	Davis	Eric	diff
T	-.051	-.035	16	-.041	-.014	27
B	-.036	-.063	-27	-.082	-.052	30
R	-.100	-.111	-11	-.079	-.113	-43
L	-.100	-.085	15	-.107	-.108	-1



The differences between the two measurements are much larger than the expected accuracy of the measuring technique. The differences are spread about zero, from -30 to +30 th and also within individual panels. This fact seems to exclude a systematic error due to temperature or operator. It would appear that it is not possible to measure the panel dimensions to better than 20 th.

Independently, two measurements were made on panel 109-01 without moving the panel or the theolodites. The operators were not the same but sightings were checked by two people, at least, for the second measurement. The results are listed in Table 3. Differences up to 30th were observed.

Table 3.

	1st measurement	2nd measurement	diff.
L	106.4556	106.4268	29
R	106.4284	106.4070	21
B	66.6961	66.6797	16

