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24 April 1992

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From:

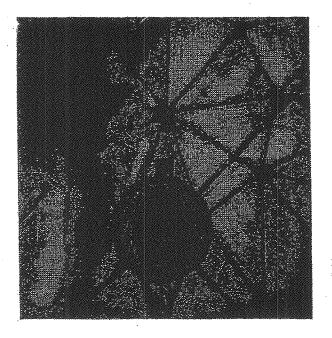
Alan E.E. Rogers A EER

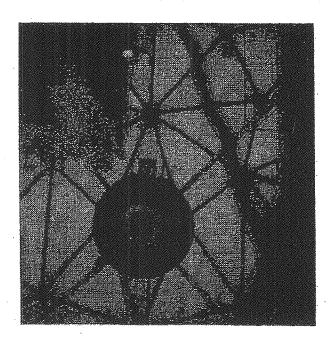
Subject:

Small scale roughness distribution from sunscans

Sunscans were taken on 21 April 1992 with the subreflector shrouded with an absorber (see Figure 1). In the first two scans (4 half-scans) the center of the dish was shielded from illumination by the presence of a blanket of absorber covering the inner portion (28" radius) of the subreflector. The following two scans were taken with the complementary absorber. In this case, the absorbing blanket covered only the outer part (28" - 56" radius) of the subreflector, thereby illuminating only the inner portion of the main reflector. While the observing conditions at 115 GHz were poor owing to heavy clouds (especially for the last two scans taken without any absorber - not show in Figure 2) it is fairly clear that the small scale roughness is larger on the outer part of the dish. The sunscans shown in Figure 2 were inverted using the procedure described in the memo of 6 April 1992. The results were:

SCAN	- SMALL SCALE RMS MILS
1A	6.9
1B	6.3
2A	7.4
2B	6.8
Average outer	6.8 ± 0.5
3A	4.2
3B	5.6
4A	4.3
4B	5.4
Average inner	4.8 ± 0.5





a) Inner portion blanked outer portion illuminated

b) Outer portion blanked inner portion illuminated

Figure 1. Absorbing blanket over subreflector

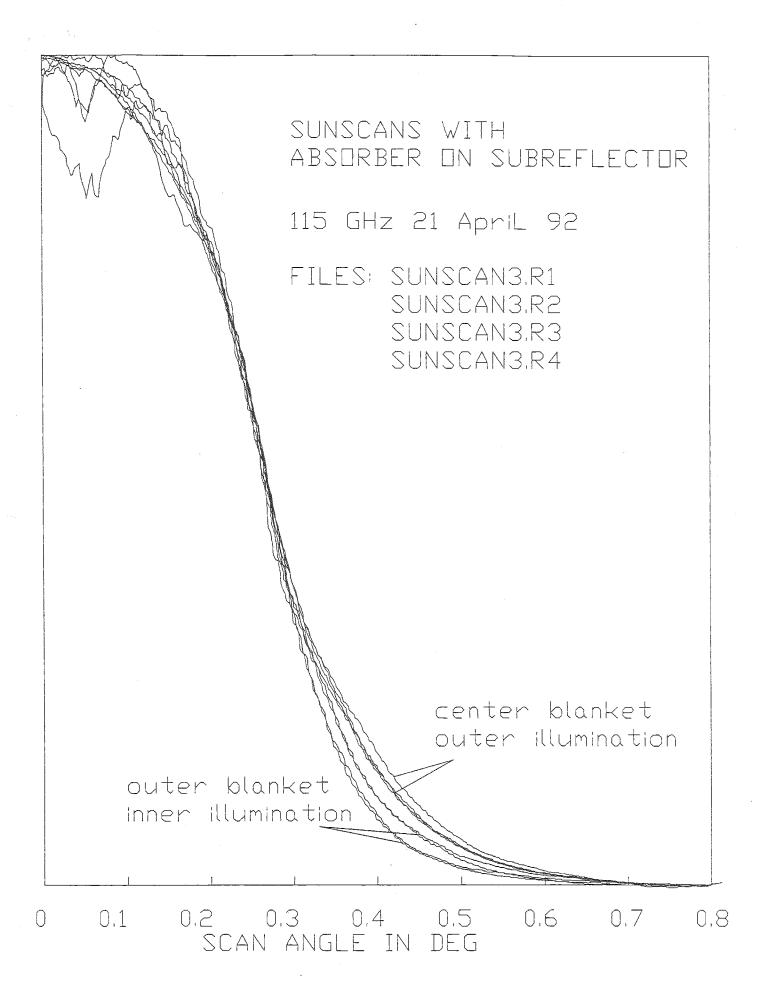


Figure 2.