

#93-15

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

HAYSTACK OBSERVATORY

WESTFORD, MASSACHUSETTS 01886

23 July 1993

Telephone: 508-692-4764

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To: Radio Astronomy Group
From: Alan E.E. Rogers
Subject: Meeting held 22 July 19⁹3 with SGH

Action Tasks for Haystack

- 1] Make a table of SGH model coefficients and those coefficients determined by tuning up the gain. (This table is needed fairly soon to help clarify what is needed to resolve the differences between the mechanical model and the way the antenna actually behaves.)
- 2) Tests of the subreflector astigmatism to make sure that the astigmatism control is decoupled (through the software corrections) from focus.
- 3) More holography:
 - a) To determine the optimization of the thermal control.
 - b) Low elevation satellite to what distortions are reducing the gain.
 - c) Examine variations in scalloping with elevation.
- 4) Check tuning coefficients at 43 GHz. See if 115 GHz tuning is the same at 86 GHz.

Tasks for SGH Proposal

- 1] Try to understand astigmatism dependence on strain and elevation.
- 2] Determine model predictions for rms vs elevation for a feed taper of 4.5 dB (to check the effect of the overillumination at 86 GHz).
- 3] Re-examine the rms vs elevation.
- 4] Transfer the adjustment software to Haystack.
- 5] Consider what support Haystack needs to allow occasional readjustment of the surface.

Distribution:

J. Ball	J. Crowley	J. Salah	R. Barvainis	A. Haschick
P. Shute	R. Cady	R. Ingalls	A. Whitney	J. Cannon
C. Lonsdale	M. Zarghamee	J. Carter	S. Milner	K. Dudevoir
P. Charpentier	S. Murray	B. Corey	A. Rogers	

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