M19H Notes and Comments

4-27- 79
IMPROVEMENTS SUGGESTED POSSIBLE

* Standardize Varactor Chain length, coupling plate and pickup loop.

* Starting bar B-2 thus far has performed well to minimize harmonics especially @ 750. Increases power slightly too. Changing CR6 to a 47047 is most always good for knocking hars down about 2dB.

* B2 Linearity -Find a way to sweep from 450 to 950 MHz with less ramp so that low end of present system is shifted out of the way of the back bias knee. May require different Varactors than that presently used.

4-25-79
* Har Problems Band 2 unless otherwise noted. Linearity and over-level setup OK. Harmonics unusually high on most all modules. Mudcaps not helping.

* Hars running average of 30dB $\pm$ 10dB fairly level across band centered at about 750MHz.

* 500 hars have not been a problem thus far.

* Solution to har problem seems to be changing CR6 to a 47047- this will help from 1 to 5dB. Also putting a shorting bar in the cavity such as that in band 3 around 1st or 2nd varicap. (In one instance this did not work though). Strangely enough the addition of the shorting bar seems to increase power slightly.

Notes + Comments (Cont)

RANDOM SAMPLE
Band 2 Sweep Vs Frequency Chart

FREQUENCY	SWEEP V. TO VARICAPS	BACK BIAS V.
450	-7.61	-7.60
500	-5.88	-6.72
550	-4.63	-6.30
600	-3.19	-6.08
650	-1.55	-5.97
700	+ .11	-5.96
750	+1.77	-5.96
800	+3.80	-5.96
850	+5.97	-5.96
900	+8.50	-5.96
950	+11.00	-5.96

Bad Frequency pull- Usually B-3 check to see if Q8 is installed. Module will function properly, but will cause very bad frequency pull.