

# OFF-AIR HD RECEPTION IMPROVEMENTS

KNME STUDIOS, ALBUQUERQUE, NM

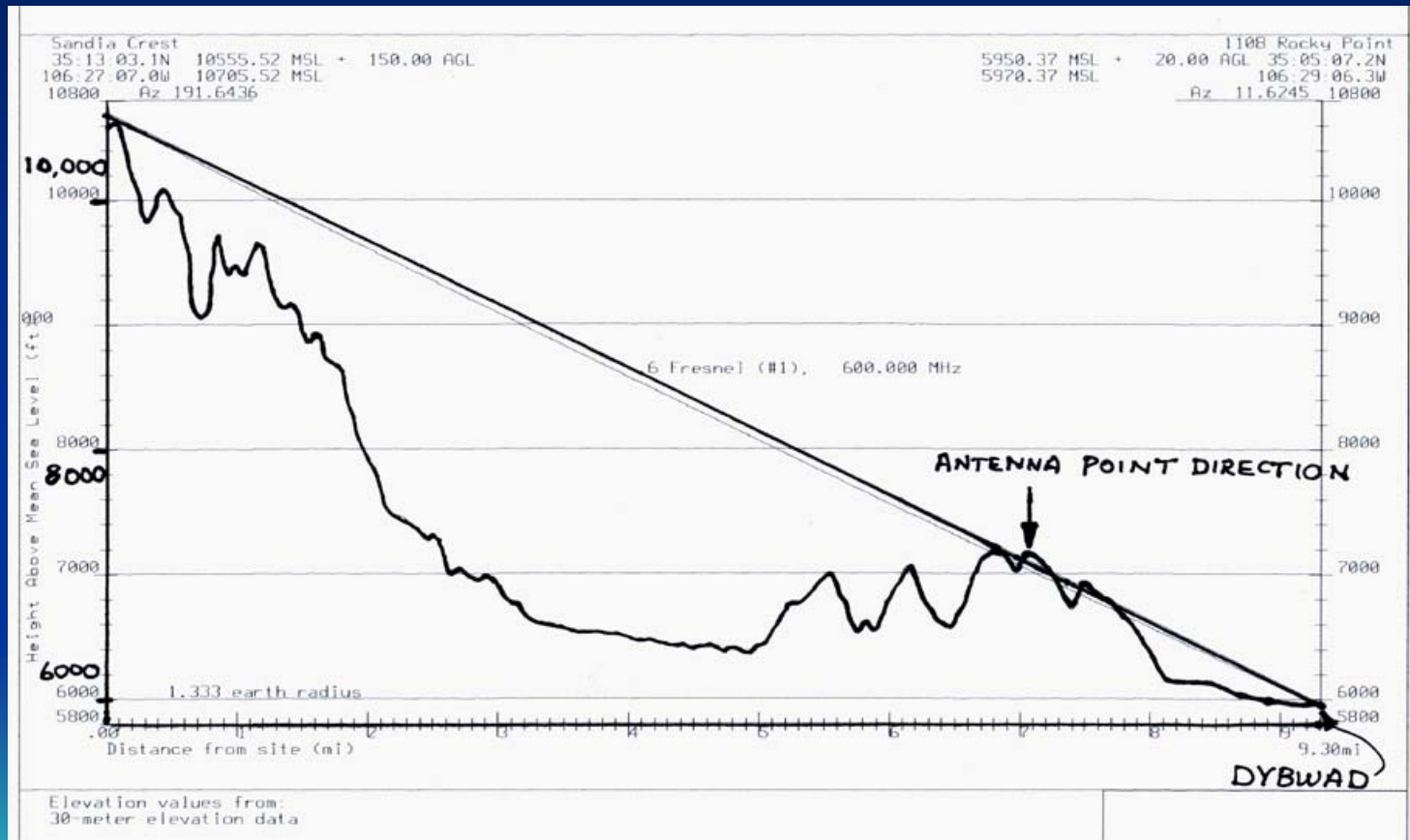
APRIL 19, 2007

G. L. DYBWAD, 1108 ROCKY PT CT NE



# SHADOWED LOCATION

No direct line-of-sight to the broadcast antennas on the Crest



# WINEGARD UHF ANTENNA



- Winegard #9022 UHF center mount; 15 dB gain
- Channel Master 777 preamp with 26 dB gain, 2 dB noise figure; \$70
- RG-6 Radio Shack 50 foot downlead, 5-6 dB loss/100 feet @ 400 MHz
- DirecTV 3<sup>rd</sup> gen ATSC satellite receiver

# 43XG Antenna



-AntennasDirect 43XG with 15.6 dB gain

-Channel Master 777 Preamp with 26 dB gain, 2 dB noise figure

-Radio Shack 50 foot quad shield download, 5-6 dB loss/100 feet & 400 MHz

-Dish Network 5<sup>th</sup> gen ATSC satellite receiver

# NEW OFF-AIR SYSTEM



-DB8 Antennas Direct omni-directional with 15.7 dB gain

-Research Communications, Ltd. #9253 GaAs FET preamp with 23 dB gain, 0.6 dB noise figure

-RG-11 Belden 50 foot downlead, 2.34 dB loss/100 ft at 400 MHz

-Dish Network 5<sup>th</sup> gen satellite receiver

# ResearchCommunications



British manufacture

-#9253 small metal GaAs FET low-noise preamp

-#9251 plastic weatherproof housing with gland feedthroughs

-#9252 12 volt power supply for 110 vAC

-\$320 USD delivered

-RG-11 single-piece F-connectors

(Thanks KNME RF Dept for attaching the connectors)

# Compare Viewing Results

Winegard 9022	43XG Antenna	DB8, 9253 preamp & RG-11 cable
-Video pixelization	-Brief video pixelization	- <b>No</b> video pixelization
-Frequent channel dropout	-Occasional channel dropout	- <b>No</b> channel dropout
-Large oscillations in Canyon winds (79" boom)	-Oscillations in Canyon winds (43" boom)	- <b>Small</b> oscillations in Canyon winds (6" deep)
-Interference from airplanes	-Very sensitive to pointing errors	- <b>Not</b> sensitive to pointing errors





# SIGNAL COMPARISONS (%)

Main Local Channels	Winegard	43XG	DB8 + 9253 preamp + RG-11 cable
FOX 2.1 (chan 27)	68	74	83
KOB 4.1 (chan 26)	71	77	77
KNME 5.1 (chan 35)	0	66	66
KOAT 7.1 (chan 21)	73	80	82
KRQE 13.1 (chan 16)	0	0	0
KWBQ 19.1 (chan 29)	69	78	82
KAZQ 32.1 (chan 17)	79	92	93
KLUZ 41.1 (chan 42)	0	66	70
KASY 50.1 (chan 45)	0	0	0





# Half-Price Sale

- AntennasDirect 43XG antenna and bracket
- ChannelMaster 777 preamp & power supply, complete
- 50 foot quad-shield RG-6 downlead
- 128 sq ft Sonex 53 mm thick acoustic absorption foam (8-2 ft x 8 ft panels)

Gay Dybwad, 296-9047, [gldybwad@comcast.net](mailto:gldybwad@comcast.net)

