

Version 1.2 Oct 15, 2013

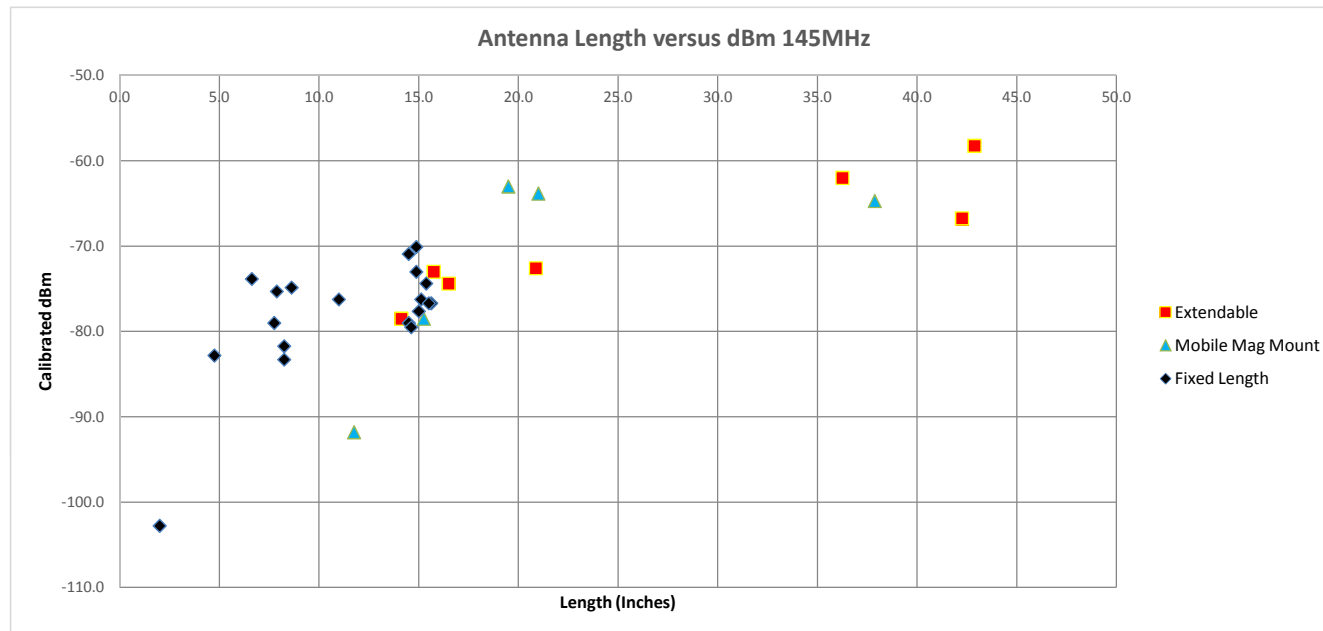
Owned	Manufacturer	Model	dBS9 at 2.05 Miles 146MHz	dBm at 2.05 Miles 146MHz	~dBS9 at 2.05 Miles 435MHz	~dBm at 2.05 Miles 435MHz	Expanded (inches)	Collapsed (inches)	Packaging	Notes
	Harvest	RH-660S	14.8	-58.2	-10.9	-83.9	42.9	11.0	Yellow	Heavy - not sure I'd put this on an HT
	Harvest	RH770	11.0	-62.0	-21.7	-94.7	36.3	8.3	Yellow	Heavy - not sure I'd put this on an HT
x	TRAM	1185	10.0	-63.0	-26.7	-99.7	19.5			Mobile mag mount
	Nagoya	UT-72-BNC	9.2	-63.8	-23.2	-96.2	21.0			Mobile mag mount
x	Browning	BR-180	8.3	-64.7	-13.6	-86.6	37.9			Mobile mag mount
x	MFJ	MFJ-1714S	6.3	-66.8	N/A	N/A	42.3	10.3	Yellow	2 meter only - heavy - not sure I'd put this on an HT
	Diamond	RH771	2.9	-70.1	-12.6	-85.6	14.9		Yellow	
x	Powerwerx	WXGAT-ST	2.1	-70.9	-13.1	-86.1	14.5			
x	Smiley	270A	0.4	-72.6	-12.0	-85.0	20.9	5.4		First one I got broke - top extension came out - top 2 sections collapsed for UHF
	Nagoya	NA-771	0.0	-73.0	-13.1	-86.1	14.9		Yellow	black sticker flat black
	Nagoya	NA-773	0.0	-73.0	-26.5	-99.5	15.8	4.1	Yellow	
	Baofeng	A-V85	-0.8	-73.8	-21.8	-94.8	6.6			
	Nagoya	NA-774	-1.4	-74.4	-17.5	-90.5	16.5	5.3	Orange	
	Nagoya	NA-775	-1.4	-74.4	-21.5	-94.5	15.4		Orange	
	Nagoya	NA-666	-1.9	-74.9	-21.5	-94.5	8.6		Orange	black sticker flat black
x	Nagoya	NA-701	-2.3	-75.3	-25.6	-98.6	7.9			blue imprint semigloss black
	Nagoya	NA-771	-3.2	-76.2	-18.0	-91.0	15.1		Orange	blue imprint semigloss black
	Nagoya	NA-702	-3.2	-76.2	-27.7	-100.7	11.0		Yellow	
x	Diamond	SRH77CA	-3.7	-76.7	-12.6	-85.6	15.6		Yellow	
	MFJ	MFJ-1717S	-3.7	-76.7	-15.8	-88.8	15.5		Yellow	
x	Nagoya	NA-771	-4.6	-77.6	-16.9	-89.9	15.0			Length is different from other one blue imprint semigloss black
	Nagoya	UT-106UV-SMAJ	-5.5	-78.5	-26.3	-99.3	15.3			Mobile mag mount
	Nagoya	NA-636	-5.5	-78.5	-22.1	-95.1	14.1	8.4	Orange	
x	ExpertPower		-6.0	-79.0	-8.7	-81.7	14.5			Amazon 14.5" Dual Band SMA-Female no model#
x	ExpertPower	669C	-6.0	-79.0	-21.5	-94.5	7.8			
x	ExpertPower	RH771	-6.5	-79.5	-15.8	-88.8	14.6			
	Generic	J0125A	-8.7	-81.7	-21.7	-94.7	8.3		Clear	\$5.49 generic at threeholdcrows
x	Baofeng	A-5R logo	-9.8	-82.8	-22.5	-95.5	4.8			Antenna most frequently supplied for the UV-5R
	Nagoya	NA-701	-10.3	-83.3	-23.5	-96.5	8.3		Yellow	black sticker flat black
	Nagoya	UT-107L-BNC	-18.8	-91.8	-27.2	-100.2	11.8			Mobile mag mount
	Diamond	SRH805s	-29.8	-102.8	-27.5	-100.5	2.0		Yellow	

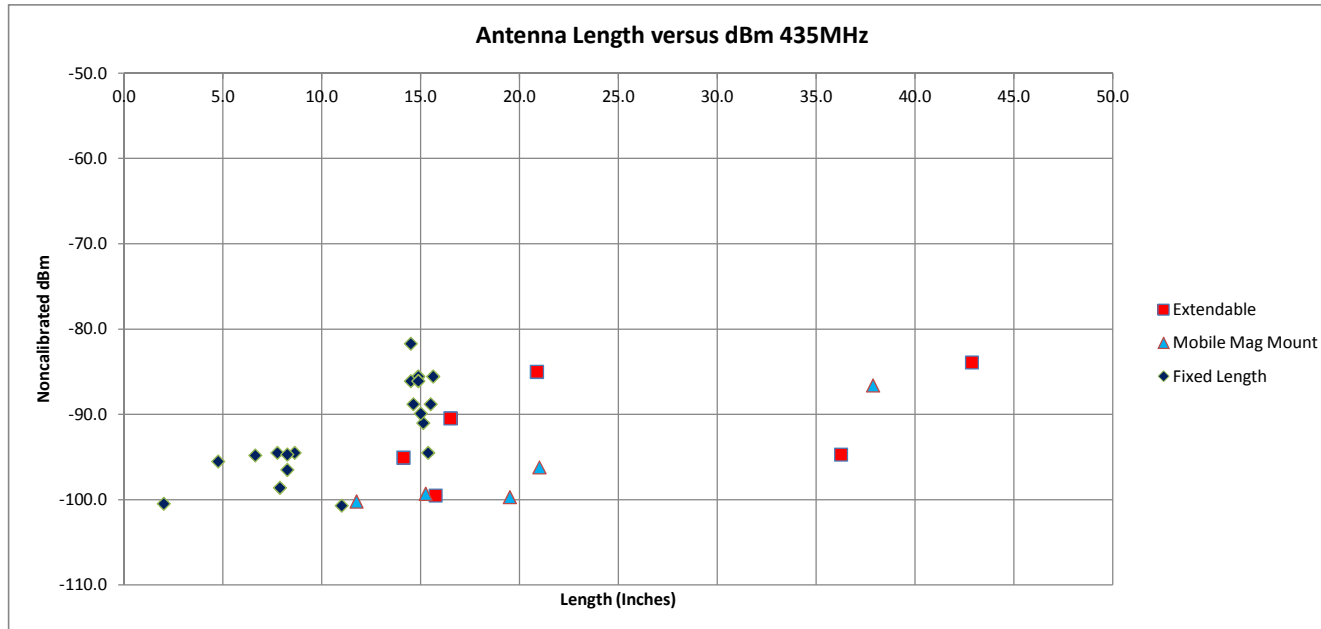
W9MDB mdblack98@yahoo.com VHF test conducted 10/5/2013 1030-1200 in Quincy IL. Weather was sunny

UHF test conducted 10/11/2013 1000-1200 in Quincy IL. Weather was sunny

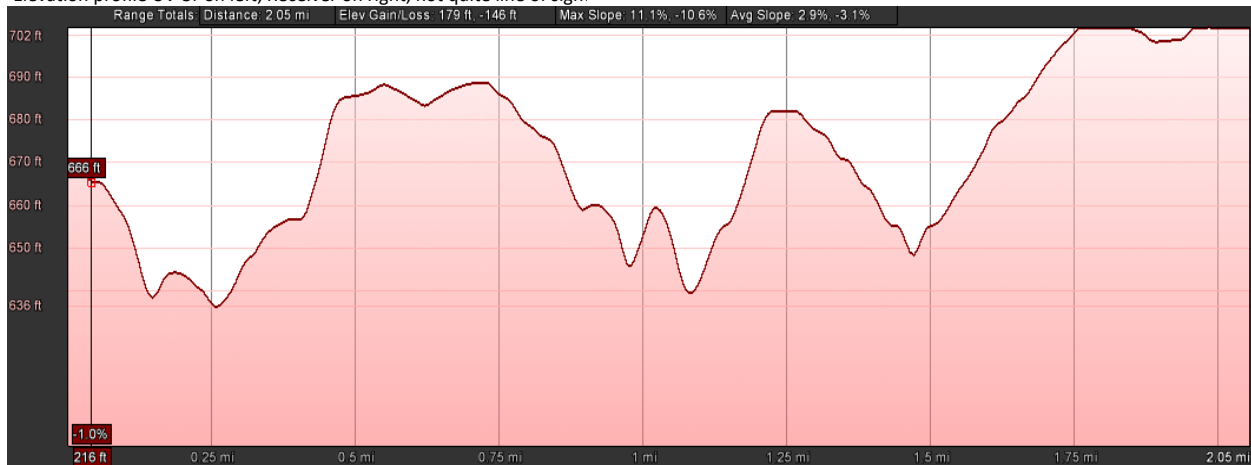
Thanks to KK6CRP Richard Pryor (not the comedian) for loaning many of these antennas

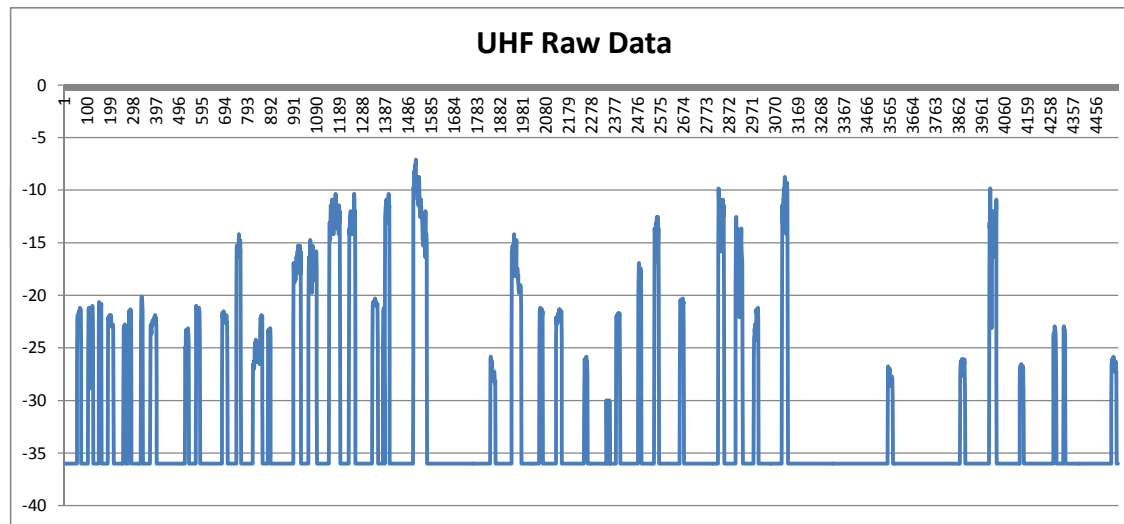
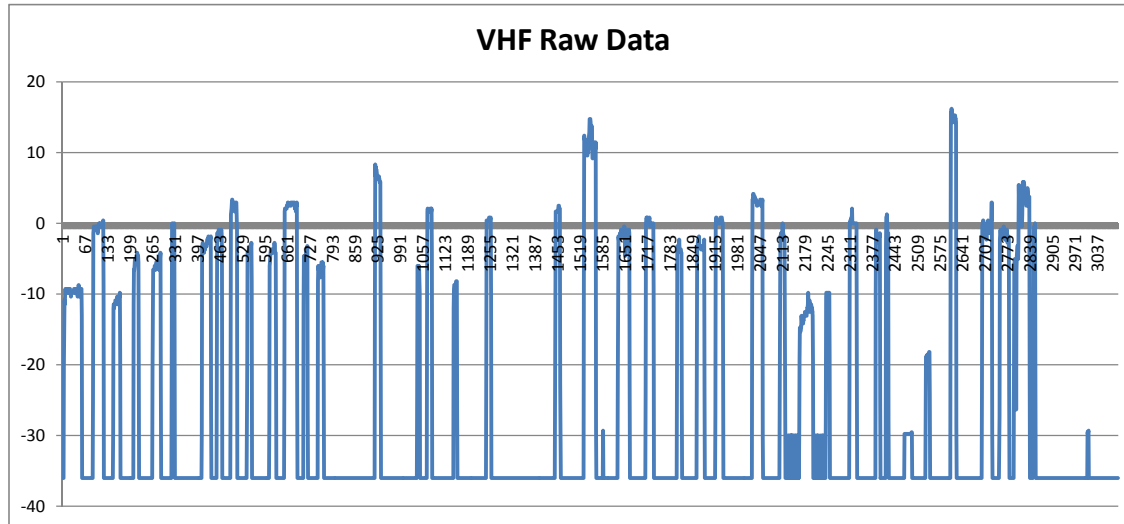
Receiver was IC-706MKIIG calibrated at 146MHz with Elecraft XG3 and MFJ-762 attenuator at S9=0dB and tested at 146/435MHz
 VHF dBs9 measurements are relative to S9=0dB=50uV due to Smeter Lite limitations and you can subtract 73dB to get dBm value:
 UHF dBs9 measurements are not calibrated so can only rely on relative values and not even dB intervals for sure
 S Meter Lite version 2.23 displayed calibrated dB units -- most common value used -- approx +/- 2dB error
 Webcam watched home computer screen while transmitting from remote location and watching webcam for dB result:
 Distance 2.05 miles
 UV-5R used while sitting in chair, held approx 2 inches from face
 Rattail doesn't appear to do much -- when rattail is against body lose 7dB from not using it al
 NA-701 to NA-771 comparison jives with <http://blog.g4ilo.com/2012/08/fake-or-genuine.htm>
 VHF test -- Anecdotal testing on VHF holding radio away from body increased signal by 6dB or more
 VHF test -- Obtained 15dB gain with A-V85 by moving antenna 12" from face and using external mic
 UHF test -- holding antenna away from face decreased signal by approx 6dB on all antenna:





Elevation profile UV-5r on left, Receiver on right, not quite line of sight





Baofeng Antennas tested



A-V85



UV-5R Logo