SBMS EIRP-MDS MW Tune Up   Sat. 22 JULY 2017

10 GHz:	Range =	220	Ft.		System Losses =	18.0	dB			WG Flange =	5	dBi
	FSPL =	89.3	dB		EIRP Amp Gain =	15.2	dB			MDS Attenuator	30	dB

			Calc.	**EIRP**	**TEST**			Meas.					------- MDS TEST -------		
												Sig.		
	Reflector	Ant.	Ant.	Radio	Calc.	EIRP	**Meas.**	vs.				Gen.	MDS	
	Size	Effic.	Gain	Output	EIRP	Reading	**EIRP**	Calc.				Out	Atten.	MDS
Callsign	(inches)	(%)	(dBi)	(dBm)	(dBm)	(dBm)	**(dBm)**	(dB)		Conditions		(dBm)	(dB)	SCORE
(DATA)	(DATA)	(DATA)	RESULT	(DATA)	RESULT	(DATA)	**RESULT**	(Delta)				(DATA)	(DATA)	RESULT
K6YAC	12.0	0.55	28	27.0	55	-49.5	**38**	-17.2		PRIME		-29	30	**-72**
KK6MXP	24.0	0.55	34	36.6	70	-17.6	**70**	-0.9		PRIME		-53	30	**-96**
WB6NOA	42.0	0.55	39	31.7	70	-34.6	**53**	-17.8		PRIME		-44	30	**-87**
AF6NA	32.8	0.64	37	43.6	81	-6.8	**80**	-0.4		OFFSET		-57	30	**-100**
W6IEE	26.6	0.55	35	24.0	59	-33.4	**54**	-5.0		PRIME		-38	30	**-81**

FSPL = Free Space Path Loss

EIRP Readings taken /w/ power meter or Spectrum Analyzer in peak mode

Meas. EIRP = Reading + Sys Loss + FS Path Loss - Amp Gain - WG Flange Gain

Ant Gain Calc = 10 x LOG (((4 x Pi x (Pi x R Squared)) x Efficiency %) / LAMBDA Squared)

MDS Signals Generated @ 144 MHz with VHF / UHF Signal Generator

MDS Score = Sig. Gen. Output - Atten. - Sys. Loss + WG Gain

System Losses = Test Fixture Conversion / Insertion Loss + 300 ft. Cable Loss

F.S. Path Loss = 37.5+20*LOG(Dist in feet)+20*LOG(Freq MHz) - same as prior years = 89.3 dB @ 10.368 GHz

300 ft. Cable Loss = 7.5 dB @ 144 MHz

Open WR-90 Gain assumed to be 5 dB