III. CONCLUSION

WHEREFORE, the National Association of Business and Educational Radio, Inc., the American Mobile Telecommunications Association, the Industrial Telecommunications Association, Inc. and Motorola, Inc. respectfully request that the Commission amend Sections 90.621 of its rules consistent with these Comments.

Respectfully submitted,

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By: Vice President for
Emmett B. Kitchen, Jr.
President

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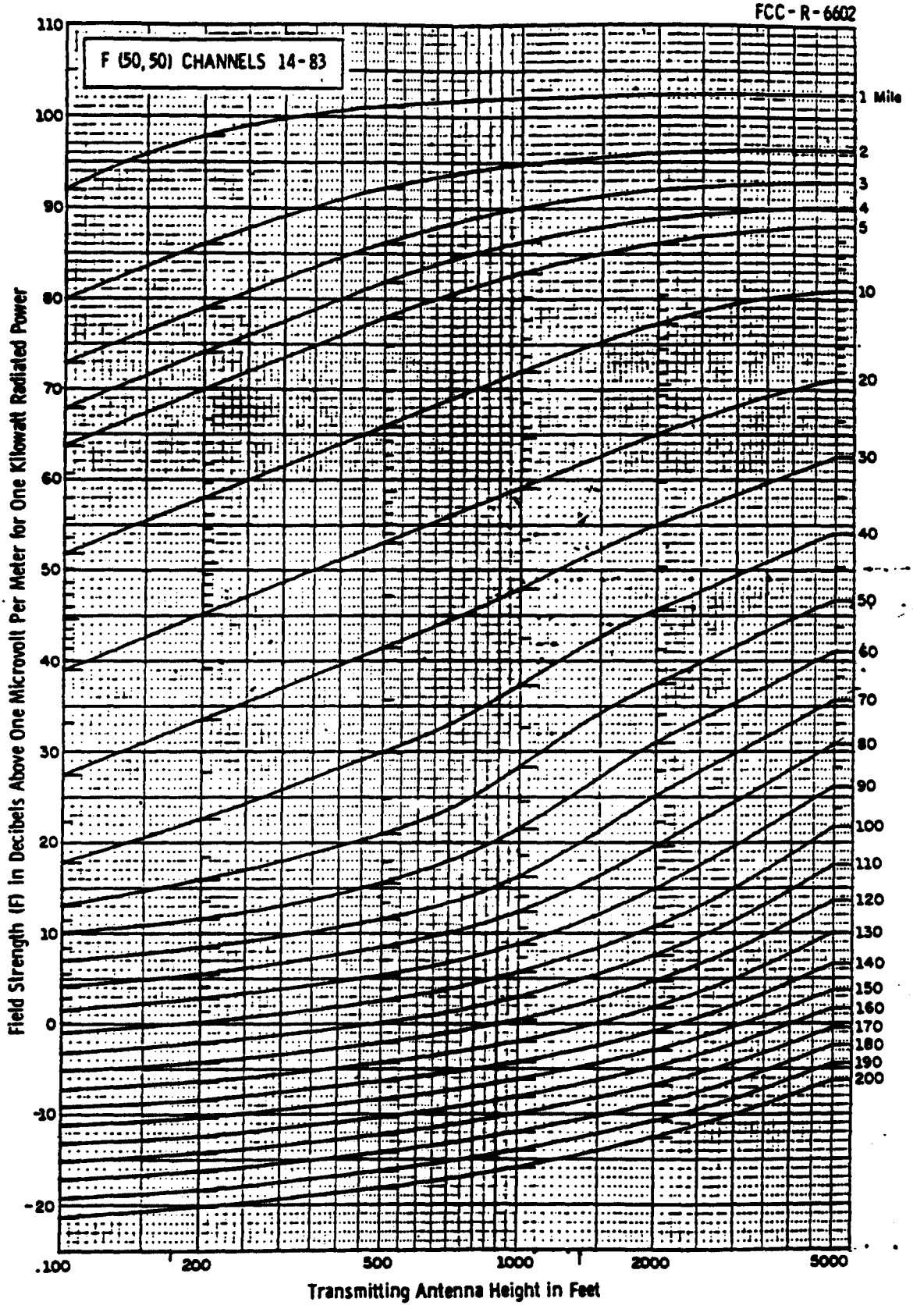
By: Andrew J. Cole for
Mark E. Crosby
President

MOTOROLA, INC.
1350 I Street, N.W.
Suite 400
Washington, D.C. 20005

By: Michael Kennedy
Michael Kennedy
Director of

E X H I B I T 1

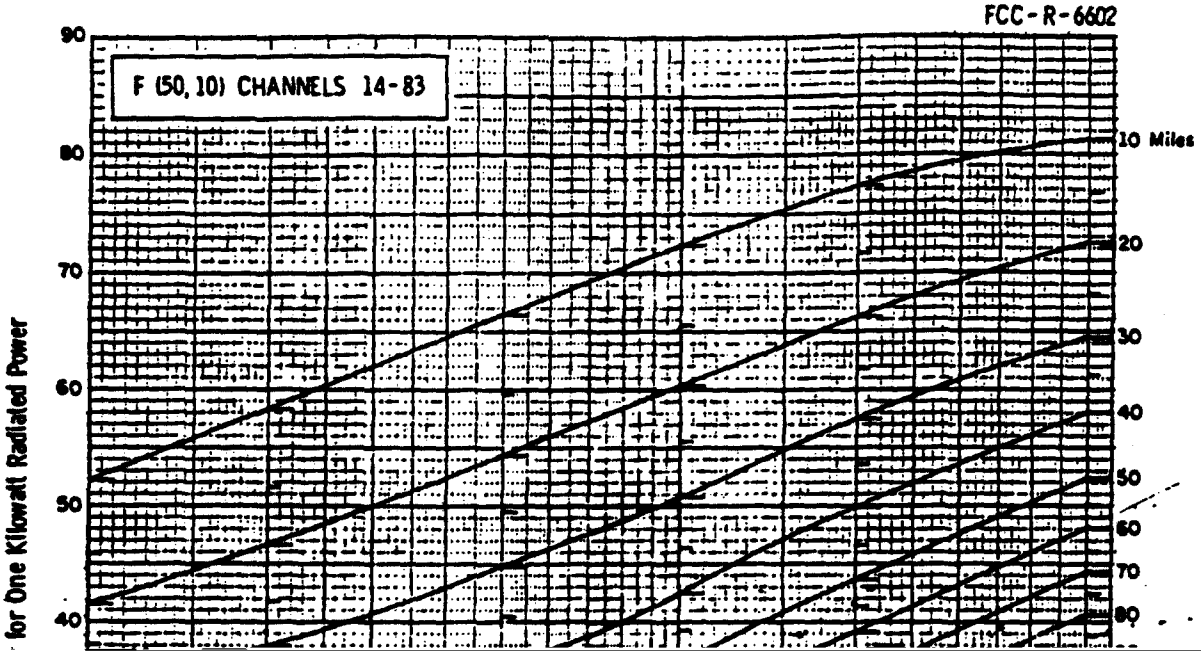


TELEVISION CHANNELS 14-83
ESTIMATED FIELD STRENGTH EXCEEDED AT 50 PERCENT
OF THE POTENTIAL RECEIVER LOCATIONS FOR AT LEAST 50 PERCENT
OF THE TIME AT A RECEIVING ANTENNA HEIGHT OF 30 FEET

April 12, 1966

FIGURE 29

E X H I B I T 2


F (50, 10) CHANNELS 14-83
90
80
70
60
50
40
for One Kilowatt Radiated Power
10 Miles
20
30
40
50
60
70
80

E X H I B I T 3

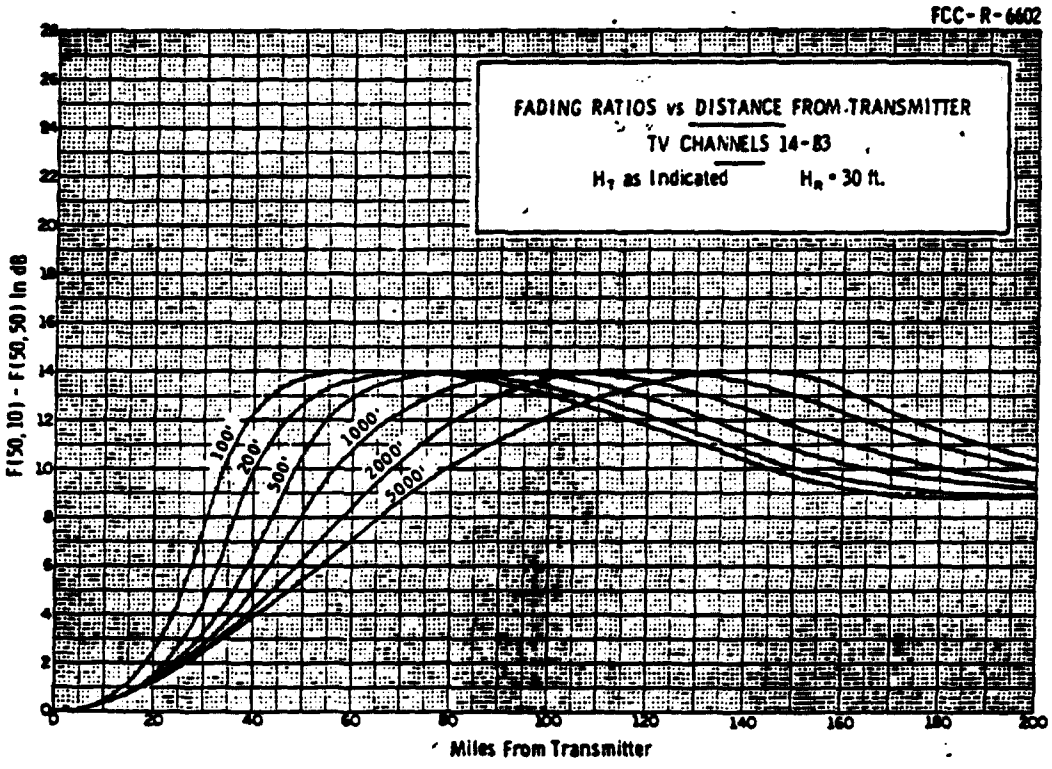
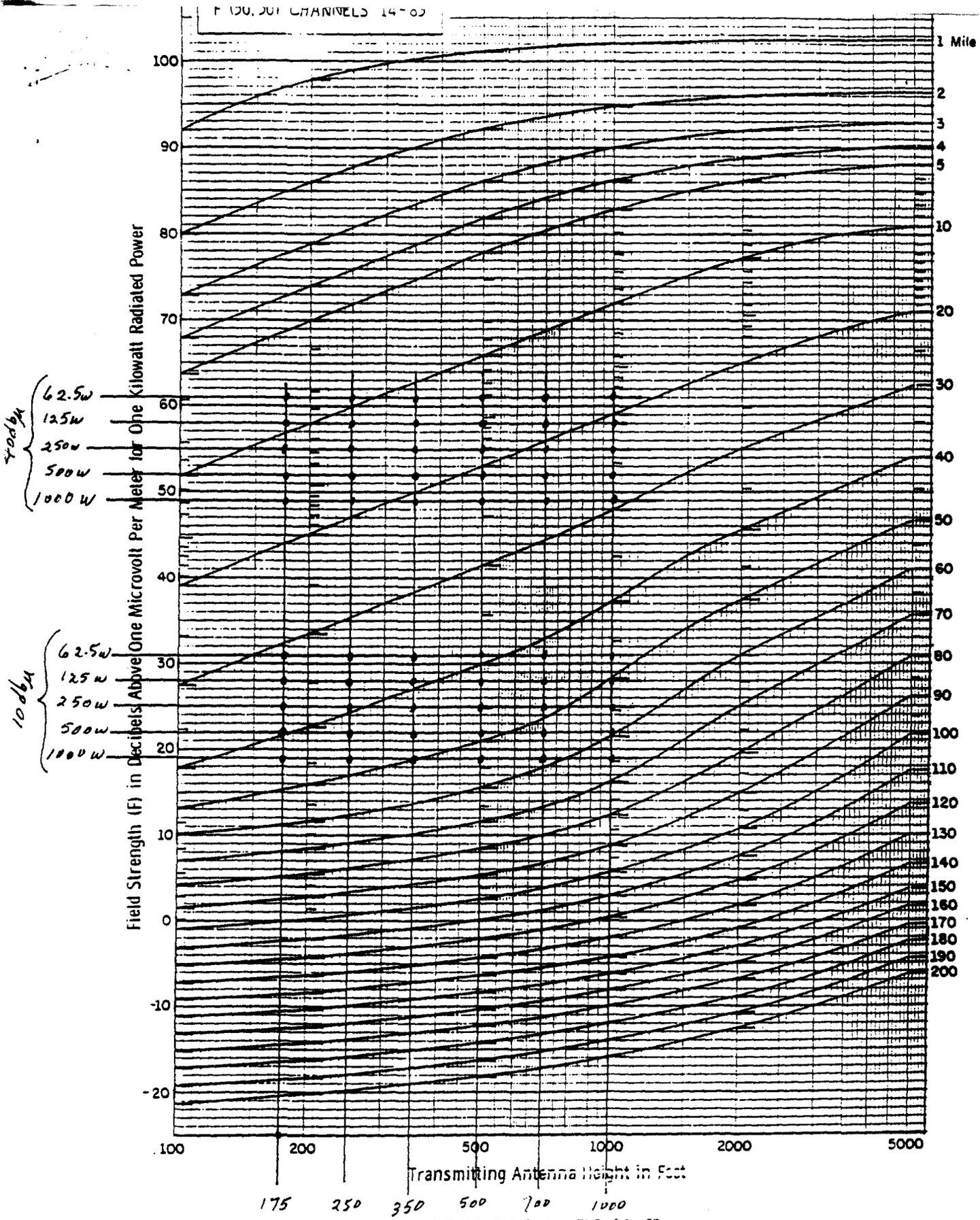

FCC-R-6602
FADING RATIOS vs DISTANCE FROM TRANSMITTER
TV CHANNELS 14-83
H_T as Indicated H_R = 30 ft.
F(50,10) - F(50,50) in dB
Miles From Transmitter
100'
200'
500'
1000'
2000'
5000'
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
20
40
60
80
100
120
140
160
180
200

FIGURE 26

E X H I B I T 4



TELEVISION CHANNELS 14-83
ESTIMATED FIELD STRENGTH EXCEEDED AT 50 PERCENT
OF THE POTENTIAL RECEIVER LOCATIONS FOR AT LEAST 50 PERCENT
OF THE TIME AT A RECEIVING ANTENNA HEIGHT OF 30 FEET

April 12, 1966

		PROPOSED STATION																													
	ERP	1000W						500W						250W						125W						62W					
	DHAAT	305	215	150	108	76	54	305	215	150	108	76	54	305	215	150	108	76	54	305	215	150	108	76	54	305	215	150	108	76	54
	305	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113
1000W	150	113	113	113	113	113	111	113	113	113	113	111	106	113	113	113	109	106	103	113	113	111	106	103	100	113	109	106	103	101	98
	54	113	113	111	106	98	95	113	111	103	98	95	90	113	103	98	93	90	87	106	100	95	90	87	84	100	93	90	87	85	82
	305	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	111	113	113	113	113	113	108
EXISTING 500W	150	113	113	113	113	106	103	113	113	111	106	103	98	113	111	108	101	98	95	113	106	103	98	95	93	108	101	100	95	93	90
STATION	54	113	113	106	101	95	90	113	106	98	95	90	85	109	98	93	89	85	82	101	95	89	85	82	80	97	89	85	82	80	80
	305	113	113	113	113	113	113	113	113	113	113	113	109	113	113	113	113	109	106	113	113	113	109	106	103	113	113	109	106	105	101
250W	150	113	113	113	109	103	98	113	113	108	103	98	93	113	106	101	97	93	90	111	103	98	93	90	87	105	97	93	90	89	85
	54	113	111	103	98	90	87	113	103	95	90	87	82	106	93	90	85	82	80	98	92	85	82	80	80	93	85	82	80	80	80
	305	113	113	113	113	109	106	113	113	113	109	106	101	122	113	111	105	101	98	113	109	106	101	98	97	111	105	103	98	97	93
125W	150	113	113	111	106	98	95	113	111	103	98	95	89	113	103	98	93	89	85	106	100	92	89	85	82	100	93	89	85	84	80
	54	113	108	100	95	89	84	111	100	93	89	84	80	103	92	87	82	80	80	97	89	82	80	80	80	90	82	80	80	80	80
	305	113	113	113	109	105	100	113	113	108	105	100	97	113	109	105	100	97	93	111	105	100	97	93	90	105	100	97	93	92	87
62W	150	113	113	108	103	95	90	113	108	100	95	92	85	109	100	93	90	87	82	103	97	89	85	82	80	97	90	84	80	80	80
	54	113	106	98	93	85	82	108	98	90	85	82	80	101	90	85	80	80	80	93	87	80	80	80	80	87	80	80	80	80	80

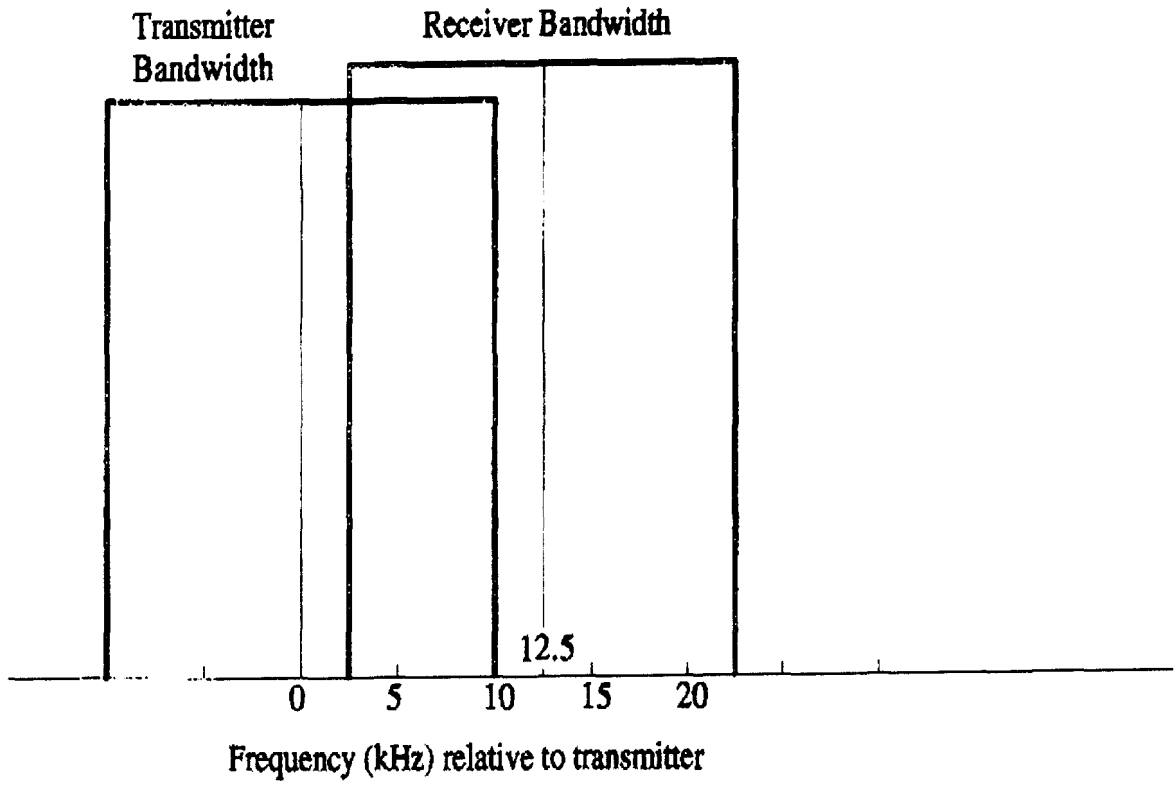
DHAAT IN METERS
DISTANCE IN KILOMETERS

E X H I B I T 5

		PROPOSED STATION																													
	ERP	1000W						500W						250W						125W						62W					
	DHAAT	1000'	700'	500'	350'	250'	175'	1000	700'	500'	350'	250'	175'	1000	700'	500'	350'	250'	175'	1000	700'	500'	350'	250'	175'	1000	700'	500'	350'	250'	175'
	1000'	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
	1000W 500'	70	70	70	70	70	69	70	70	70	70	69	66	70	70	70	68	66	64	70	70	69	66	64	62	70	68	67	64	63	61
	175'	70	70	69	66	61	59	70	69	64	61	59	56	70	64	61	58	56	54	66	62	59	56	54	52	62	58	56	54	53	51
	1000'	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	70	70	70	70	70	67
EXISTING	500W 500'	70	70	70	70	66	64	70	70	69	66	64	61	70	69	67	63	61	59	70	66	64	61	59	58	67	63	62	59	58	56
STATION	175'	70	70	66	63	59	56	70	66	61	59	56	53	68	61	58	55	53	51	63	59	55	53	51	50	60	55	53	51	50	50
	1000'	70	70	70	70	70	70	70	70	70	70	70	68	70	70	70	70	68	66	70	70	70	68	66	64	70	70	68	66	65	63
	250W 500'	70	70	70	68	64	61	70	70	67	64	61	58	70	66	63	60	58	56	69	64	61	58	56	54	65	60	58	56	55	53
	175'	70	69	64	61	56	54	70	64	59	56	54	51	66	58	56	53	51	50	61	57	53	51	50	50	58	53	51	50	50	50
	1000'	70	70	70	70	68	66	70	70	70	68	66	63	70	70	69	65	63	61	70	68	66	63	61	60	69	65	64	61	60	58
	125W 500'	70	70	69	66	61	59	70	69	64	61	59	55	70	64	61	58	55	53	66	62	57	55	53	52	62	58	55	53	52	50
	175'	70	67	62	59	55	52	69	62	58	55	52	50	64	57	54	51	50	50	60	55	51	50	50	50	56	51	50	50	50	50
	1000'	70	70	70	68	65	62	70	70	67	65	62	60	70	68	65	62	60	58	69	65	62	60	58	56	65	62	60	58	57	54
	62W 500'	70	70	67	64	59	56	70	67	62	59	57	53	68	62	58	56	54	51	64	60	55	53	51	50	60	56	52	50	50	50
	175'	70	66	61	58	53	51	67	61	56	53	51	50	63	56	53	50	50	50	58	54	50	50	50	50	54	50	50	50	50	50

DHAAT IN FEET
DISTANCE IN MILES

E X H I B I T 6


Transmitter Bandwidth
Receiver Bandwidth
12.5
0
5
10
15
20
Frequency (kHz) relative to transmitter