

EXHIBIT 10  
(Page 1 of 7)

PROPOSED NIGHTTIME FACILITIES

M-10 Broadcasting, Inc.  
Pikesville, MD

The construction and tuning of the daytime and nighttime facilities authorized by the WWLG construction permit (BMP-20020809ABG) have been completed and a license application to cover this construction permit was recently filed with the FCC. As outlined in this license application, it was not possible to contain the measured WWLG nighttime directional pattern within the standard pattern limits on four radials (198.5°, 244.5°, 264°, 316.5°). The attached application proposes to augment the nighttime standard pattern authorized by this construction permit on these four radials to encompass the measured radiation values shown in this license application. Table 10.0 presents a complete description of the proposed modified nighttime antenna system. Table 10.1 is a tabulation of the proposed modified WWLG nighttime directional pattern. This pattern is shown in polar form in Figure 10.1.

It should be noted that, since the attached application simply proposes the addition of minor augmentations to the authorized WWLG nighttime pattern, no site map, horizontal plan view, or site photographs have been included as part of this application. Furthermore, no service contours are included as part of this application, since they are substantially unchanged from the those presently on file with the FCC. Finally, it should be further noted that the attached application proposes no changes whatsoever to the WWLG daytime directional pattern authorized by the above referenced construction permit, which is located at a totally separate transmitter site.

TABLE 10.0

WWLG PROPOSED NIGHTTIME  
DIRECTIONAL ANTENNA SYSTEM

M-10 Broadcasting, Inc.  
Pikesville, MD

Power:	7.7 kilowatts, directional		
Type of elements:	Vertical, uniform cross section, guyed and base insulated, series excited.		
Height above insulators:	97.5° electrical, 194.5' (59.3 m) physical		
Overall height:	#1 - 199.5' (60.8 m) AGL, 645.0' (196.6 m) MSL #2 - 198.5' (60.5 m) AGL, 645.8' (196.8 m) MSL #3 - 198.5' (60.5 m) AGL, 646.0' (196.9 m) MSL #4 - 198.5' (60.5 m) AGL, 648.0' (197.5 m) MSL #5 - 198.5' (60.5 m) AGL, 645.5' (196.7 m) MSL #6 - 199.8' (60.9 m) AGL, 643.5' (196.1 m) MSL		
Antenna Structure Registration Numbers:	Registration of these towers is not required.		
Orientation and spacing:	<u>Tower</u>	<u>Bearing</u>	<u>Spacing</u>
	1		Reference
	2	131.4°	73.5° (44.7 m)
	3	130.3°	180.5° (109.7 m)
	4	127.0°	360.0° (218.8 m)
	5	127.0°	446.9° (271.6 m)
	6	127.0°	540.0° (328.2 m)
Electrical parameters:	<u>Tower</u>	<u>Field Ratio</u>	<u>Phase</u>
	1	1.000	0.0°
	2	1.710	-141.1°
	3	1.160	93.0°
	4	1.090	-2.0°
	5	1.070	-139.5°
	6	0.400	87.0°

TABLE 10.0 (cont'd)

Augmentation Data:	<u>Azimuth (Degrees)</u>	<u>Span (Degrees)</u>	<u>Radiation (mV/m at 1 km)</u>
	198.5	92.0	314.0
	244.5	39.0	90.0
	264.0	39.0	115.0
	316.5	47.0	100.0
Ground system:	120 equally spaced radials of #10 AWG copper wire, each 54.7 meters in length, buried approximately 10 cm deep about each tower. These radials are truncated where they intersect a transverse copper strap running between adjacent towers or the property boundary.		
Predicted efficiency:	1032.50 mV/m at 1 km RMS (Augmented Standard)		
Location:	North Latitude:	39° 24' 29"	
	West Longitude:	76° 46' 32"	

AUGMENTED STANDARD PATTERN PARAMETERS

POWER: 7.700 kW  
 SPECIFIED RMS: 979.60 mV/m @ 1 km

TOWER	ELECTRICAL HEIGHT (Degrees)	FIELD RATIO	SPACING (Degrees)	BEARING (Degrees)	PHASE (Degrees)	REF FLAG
1	97.5	1.000	0.0	0.0	0.0	
2	97.5	1.710	73.5	131.4	-141.1	
3	97.5	1.160	180.5	130.3	93.0	
4	97.5	1.090	360.0	127.0	-2.0	
5	97.5	1.070	446.9	127.0	-139.5	
6	97.5	0.400	540.0	127.0	87.0	

ARRAY LOSS ANALYSIS

LOOP RESISTANCE (Ohms)	THEORETICAL RMS (mV/m @ 1 km)
0.0	995.99
0.5	987.69
1.0	979.60
1.5	971.70
2.0	963.99
2.5	956.46
3.0	949.10
3.5	941.91
4.0	934.88

PAT. - MULT. (K): 385.74 mV/m @ 1 km  
 ARRAY RSS : 1074.74 mV/m @ 1 km  
 ARRAY Q TERM : 27.7489 mV/m @ 1 km  
 STANDARD RMS : 1028.99 mV/m @ 1 km  
 AUG./STD. RMS : 1032.50 mV/m @ 1 km  
 RSS/RMS RATIO : 1.10

AUGMENTATION DATA

BEARING (Degrees)	SPAN (Degrees)	RADIATION (mV/m @ 1 km)
198.5	92.0	314.0
244.5	39.0	90.0
264.0	39.0	115.0
316.5	47.0	100.0

TABLE 10.1

WWLG PROPOSED 1370 kHz, 7.7 kW  
 MODIFIED NIGHTTIME  
 STANDARD RADIATION PATTERN  
 M-10 Broadcasting, Inc.  
 Pikesville, MD

AUGMENTED STANDARD PATTERN  
HEMISPHERICAL RADIATION  
(mV/m @ 1 km)

TABLE 10.1 (Cont'd)

BEARING (Degrees)	ELEVATION												
	0.0 (Deg)	5.0 (Deg)	10.0 (Deg)	15.0 (Deg)	20.0 (Deg)	25.0 (Deg)	30.0 (Deg)	35.0 (Deg)	40.0 (Deg)	45.0 (Deg)	50.0 (Deg)	55.0 (Deg)	60.0 (Deg)
0.0	34.7	34.2	32.8	30.7	28.3	26.3	25.3	26.1	28.1	30.2	31.2	30.2	26.9
5.0	30.8	30.8	30.8	31.1	31.8	33.1	34.9	36.6	37.8	37.7	36.0	32.4	27.2
10.0	46.4	46.6	47.0	47.6	48.3	48.9	48.9	48.2	46.3	43.1	38.5	32.7	26.2
15.0	67.8	67.6	67.2	66.2	64.8	62.6	59.6	55.6	50.6	44.6	38.0	31.0	24.3
20.0	80.0	79.5	78.0	75.4	71.8	67.3	61.8	55.5	48.7	41.5	34.4	27.9	22.3
25.0	75.9	75.3	73.3	70.0	65.7	60.4	54.4	48.1	41.6	35.5	29.9	25.3	21.8
30.0	59.0	58.4	56.9	54.4	51.2	47.5	43.4	39.4	35.6	32.2	29.2	26.7	24.4
35.0	52.0	51.7	51.0	49.9	48.5	46.8	44.8	42.8	40.5	38.2	35.7	32.9	29.9
40.0	69.4	69.2	68.4	67.2	65.4	63.2	60.6	57.5	54.0	50.2	46.0	41.4	36.5
45.0	79.7	79.5	79.0	78.0	76.6	74.6	71.9	68.7	64.7	60.0	54.8	48.9	42.6
50.0	64.8	64.9	65.3	65.8	66.4	66.9	67.1	66.6	65.1	62.4	58.4	53.2	46.8
55.0	97.0	95.2	89.9	82.2	73.5	65.3	59.9	57.2	56.6	56.5	55.6	52.9	48.2
60.0	241.0	236.2	222.1	200.1	172.5	142.0	111.6	84.9	65.0	54.0	50.2	49.0	46.8
65.0	453.7	445.5	421.4	383.5	335.0	279.9	222.5	167.4	118.7	80.6	56.5	46.5	43.9
70.0	709.6	697.7	663.1	608.2	537.3	455.6	368.9	283.3	204.6	137.5	86.5	54.9	42.5
75.0	983.9	968.7	924.2	853.3	760.8	652.8	536.5	419.7	309.6	212.7	134.3	78.2	47.3
80.0	1252.4	1234.6	1182.1	1097.9	986.8	855.7	712.4	565.8	425.1	298.3	192.4	112.0	60.4
85.0	1494.8	1475.2	1417.4	1323.9	1199.3	1050.1	884.5	712.1	543.4	388.4	255.6	151.5	79.8
90.0	1697.6	1677.3	1617.1	1518.8	1386.3	1225.1	1043.1	850.2	657.9	477.6	320.0	193.3	102.5
95.0	1853.1	1835.0	1775.0	1676.2	1541.0	1373.9	1181.7	974.2	763.2	561.7	382.1	234.8	126.2
100.0	1968.4	1949.2	1891.4	1795.3	1661.8	1493.8	1297.0	1080.3	855.7	637.2	439.2	273.8	149.4
105.0	2043.7	2025.7	1971.4	1880.0	1751.0	1585.7	1388.4	1166.9	933.1	701.9	489.0	308.5	170.4
110.0	2089.8	2073.2	2022.8	1936.7	1813.5	1652.7	1457.2	1234.0	994.6	754.4	530.1	337.5	188.3
115.0	2116.2	2100.9	2053.8	1972.7	1854.8	1698.7	1505.9	1282.7	1040.1	793.7	561.3	359.8	202.3
120.0	2131.1	2116.6	2072.0	1994.3	1880.3	1727.7	1537.2	1314.3	1069.9	819.7	582.0	374.7	211.7
125.0	2140.3	2126.1	2082.5	2006.3	1893.9	1742.6	1552.9	1329.9	1084.4	832.2	591.9	381.7	216.1
130.0	2146.3	2132.0	2087.8	2010.8	1897.3	1744.8	1554.0	1330.0	1083.8	831.1	590.7	380.6	215.3
135.0	2148.4	2133.3	2087.1	2006.9	1889.8	1733.8	1540.0	1314.2	1067.8	816.3	578.3	371.5	209.5
140.0	2142.3	2126.0	2076.4	1991.3	1868.5	1707.0	1509.2	1281.6	1035.8	787.7	555.0	354.4	198.8
145.0	2120.6	2102.8	2049.1	1957.9	1828.3	1660.8	1458.9	1230.4	987.3	745.2	521.0	330.1	183.7
150.0	2073.9	2054.6	1996.5	1899.3	1763.2	1590.5	1386.2	1159.1	921.8	689.2	477.1	299.2	165.1
155.0	1992.1	1971.5	1909.8	1807.8	1667.1	1491.8	1288.4	1066.7	839.3	620.6	424.6	263.1	144.1
160.0	1866.7	1845.3	1781.7	1677.5	1535.9	1362.5	1165.1	954.1	742.0	542.0	366.3	224.9	123.9
165.0	1692.6	1671.3	1608.1	1505.7	1368.5	1203.0	1018.0	824.1	633.2	456.8	305.6	187.5	107.4
170.0	1470.8	1450.6	1391.1	1295.2	1168.4	1017.7	852.2	682.1	518.1	370.2	247.2	155.3	97.4
175.0	1210.9	1192.9	1140.2	1055.9	945.7	816.6	677.2	536.9	404.9	289.5	197.5	133.2	95.6
180.0	932.0	917.3	874.2	805.9	717.5	615.6	507.7	401.7	305.2	224.5	164.1	124.4	100.4
185.0	663.6	652.8	621.4	572.0	509.0	437.7	364.2	294.5	233.9	186.0	151.4	127.0	108.1
190.0	446.9	440.3	421.1	391.4	354.3	313.3	272.5	235.1	203.0	176.7	154.6	134.7	115.3
195.0	330.6	327.4	318.2	304.1	286.2	266.3	245.4	224.6	204.0	183.5	162.8	141.5	119.7
200.0	316.4	314.5	308.7	299.3	286.7	271.4	253.7	234.1	212.9	190.6	167.3	143.7	120.2
205.0	329.1	326.9	320.5	310.2	296.1	278.8	258.9	236.9	213.4	189.1	164.5	140.1	116.4
210.0	317.4	315.1	308.5	297.7	283.2	265.7	245.6	223.7	200.7	177.2	153.7	130.7	108.6
215.0	276.4	274.5	268.8	259.6	247.2	232.2	215.1	196.4	176.8	156.7	136.5	116.8	97.6

AUGMENTED STANDARD PATTERN      TABLE 10.1 (Cont'd)  
HEMISPHERICAL RADIATION  
(mV/m @ 1 km)

BEARING (Degrees)	ELEVATION												
	0.0 (Deg)	5.0 (Deg)	10.0 (Deg)	15.0 (Deg)	20.0 (Deg)	25.0 (Deg)	30.0 (Deg)	35.0 (Deg)	40.0 (Deg)	45.0 (Deg)	50.0 (Deg)	55.0 (Deg)	60.0 (Deg)
220.0	221.1	219.7	215.6	208.8	199.7	188.6	175.8	161.7	146.8	131.2	115.5	99.7	84.2
225.0	168.6	167.6	164.7	160.0	153.6	145.8	136.8	126.7	116.0	104.7	93.0	81.3	69.5
230.0	130.4	129.7	127.5	124.0	119.2	113.3	106.5	99.0	90.9	82.4	73.7	64.9	56.0
235.0	108.1	107.6	105.9	103.2	99.5	94.8	89.3	83.1	76.4	69.2	61.9	54.5	47.1
240.0	94.8	94.4	93.1	91.0	88.1	84.5	80.2	75.3	69.7	63.5	56.8	49.9	43.0
245.0	90.0	89.5	87.9	85.4	82.3	78.6	74.7	70.4	65.8	60.6	54.8	48.5	41.7
250.0	95.1	94.2	91.8	87.9	83.1	77.7	72.3	67.2	62.4	57.8	52.9	47.3	41.0
255.0	105.1	104.1	101.0	96.1	89.6	82.2	74.3	66.9	60.4	55.1	50.4	45.6	40.1
260.0	113.0	112.0	109.1	104.2	97.4	89.1	79.7	70.1	61.2	53.9	48.4	43.8	39.1
265.0	114.7	113.9	111.7	107.8	102.1	94.5	85.3	74.9	64.2	54.8	47.5	42.4	38.0
270.0	104.1	103.7	102.4	100.1	96.3	90.9	83.3	73.8	63.0	52.3	43.4	37.6	33.9
275.0	82.1	82.0	81.8	81.3	80.1	77.5	73.0	65.8	56.2	45.3	35.2	28.6	25.9
280.0	57.3	57.5	58.1	59.1	60.2	60.8	59.8	56.0	48.7	38.5	27.2	18.7	16.7
285.0	46.2	46.2	46.3	47.0	48.6	50.7	52.2	51.3	46.7	38.1	26.8	16.5	13.2
290.0	46.6	46.1	44.8	43.5	43.4	44.9	47.2	48.3	45.9	39.0	26.6	17.8	12.8
295.0	52.5	51.5	48.9	45.5	42.7	42.0	43.7	45.6	44.8	39.5	30.0	19.2	13.2
300.0	66.3	65.1	61.8	56.9	51.9	48.5	47.8	48.6	47.9	43.3	34.6	24.4	18.0
305.0	81.8	80.5	76.7	71.1	64.7	59.4	56.5	55.5	53.8	49.0	40.5	30.8	24.1
310.0	93.8	92.4	88.4	82.2	75.1	68.7	64.4	62.0	59.2	53.9	45.3	35.7	28.8
315.0	99.7	98.2	94.0	87.5	80.1	73.3	68.5	65.4	61.9	56.0	47.3	37.9	31.0
320.0	98.1	96.6	92.3	85.9	78.7	72.2	67.7	64.5	60.7	54.5	45.7	36.7	30.6
325.0	89.2	87.8	83.6	77.7	71.2	65.8	62.2	59.5	55.6	49.1	40.5	32.4	27.6
330.0	74.7	73.4	69.7	64.8	59.8	56.1	53.8	51.5	47.4	40.7	32.4	25.6	23.0
335.0	58.7	57.7	55.1	51.7	48.8	46.9	45.5	43.0	38.2	31.0	23.2	18.6	18.9
340.0	49.7	49.1	47.8	46.1	44.7	43.4	41.4	37.6	31.4	23.8	17.4	16.3	18.6
345.0	48.8	48.5	47.8	46.7	45.2	42.8	39.1	33.6	26.7	20.3	17.4	19.0	21.1
350.0	48.5	48.2	47.2	45.5	42.8	39.0	33.8	27.8	22.2	19.3	20.4	22.7	23.5
355.0	44.1	43.6	42.1	39.6	36.1	31.7	27.0	23.2	21.0	23.1	25.5	26.7	25.6

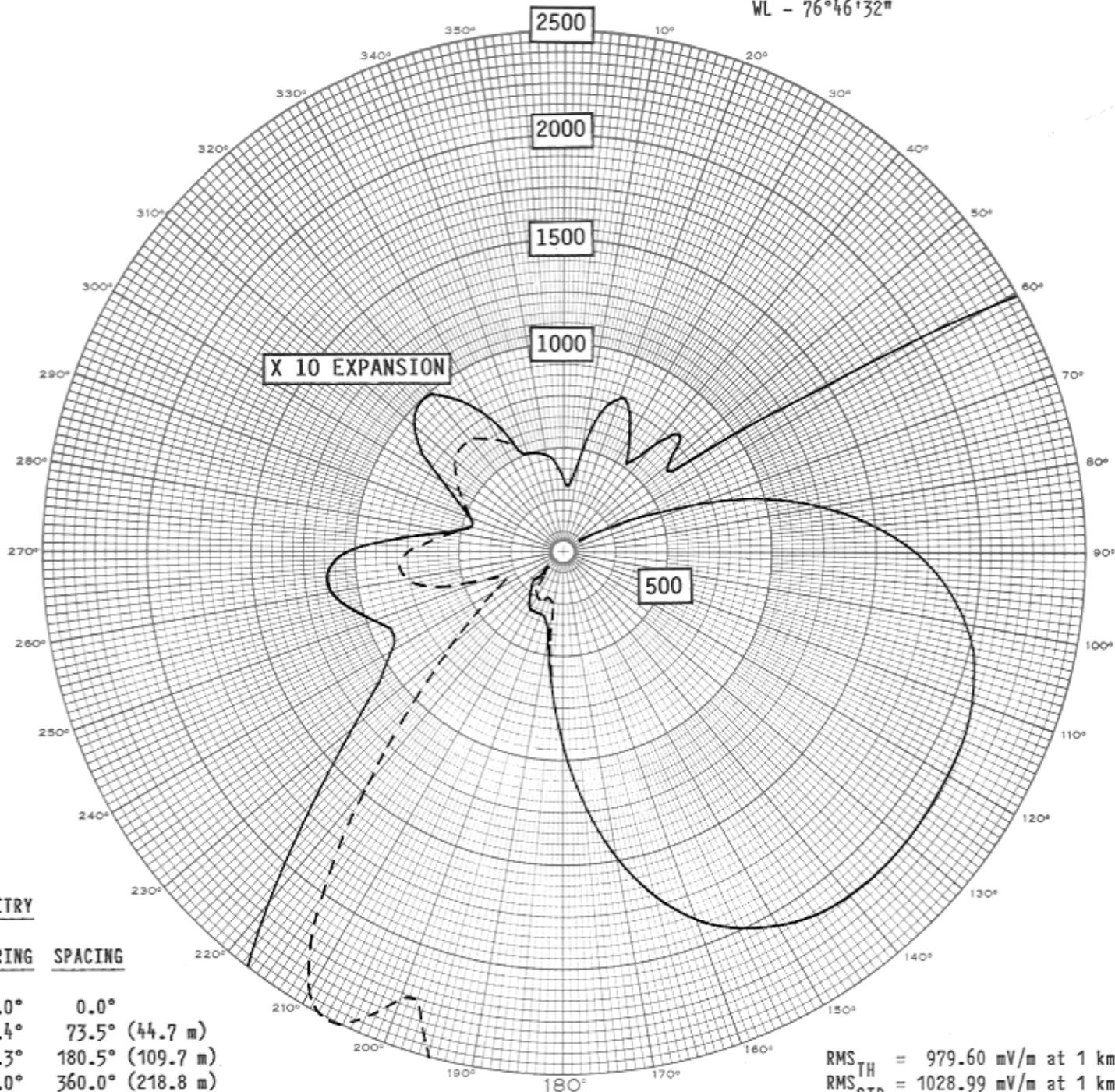
RADIATION MAXIMA

BEARING (Degrees)	RADIATION (mV/m @ 1 km)
21.3	80.6
44.5	79.8
134.3	2148.5
205.7	329.4
264.0	115.0
316.5	100.0
347.1	48.9

RADIATION MINIMA

BEARING (Degrees)	RADIATION (mV/m @ 1 km)
3.7	30.0
33.8	51.0
51.3	62.2
198.3	314.0
244.7	90.0
287.1	45.6
344.1	48.8

NL - 39°24'29"  
 WL - 76°46'32"



**ARRAY GEOMETRY**

**TOWER BEARING SPACING**

TOWER	BEARING	SPACING
1	0.0°	0.0°
2	131.4°	73.5° (44.7 m)
3	130.3°	180.5° (109.7 m)
4	127.0°	360.0° (218.8 m)
5	127.0°	446.9° (271.6 m)
6	127.0°	540.0° (328.2 m)

RMS<sup>TH</sup> = 979.60 mV/m at 1 km  
 RMS<sup>STD</sup> = 1028.99 mV/m at 1 km  
 RMS<sup>AUG</sup> = 1032.50 mV/m at 1 km  
 Q = 27.7489 mV/m at 1 km

- #1  $\triangle$  1.000/0.0°
- #2  $\triangle$  1.710/-141.1°
- #3  $\triangle$  1.160/93.0°
- #4  $\triangle$  1.090/-2.0°
- #5  $\triangle$  1.070/-139.5°
- #6  $\triangle$  0.400/87.0°

FIG. 10.1

WWLG PROPOSED 1370 kHz, 7.7 kW  
 MODIFIED NIGHTTIME STANDARD  
 HORIZONTAL PLANE PATTERN

M-10 Broadcasting, Inc.  
 Pikesville, MD

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