PRECLUSION STUDY

LANCASTER, PA

Preliminary-

The Tech Box for this application is being amended to specify operation on Channel 292. There is also a minor site change as well as changes to ERP and heights. A Minor Change Showing Map is attached.

Transmitter Site Test – Not required because site is not in a Top-50 Market

Market Grid Test - Passed

Attached as Figure 1 is a map showing the proposed Translator's 39 kilometer circle drawn in RED and a 26 kilometer circle drawn in Green around the proposed site. Also shown is the 1st adjacent 15 kilometer circle drawn in Red. The Market Grids are drawn in BLUE along with the associated Market numbers.

Because this is a 7.3kM, or less, translator we focus upon the 26 kilometer co-channel and 15 kilometer 1st adjacent spacing circles. From the map it can be seen that three markets are impacted. These markets are: Lancaster # 112, York # 107 and Reading # 134.

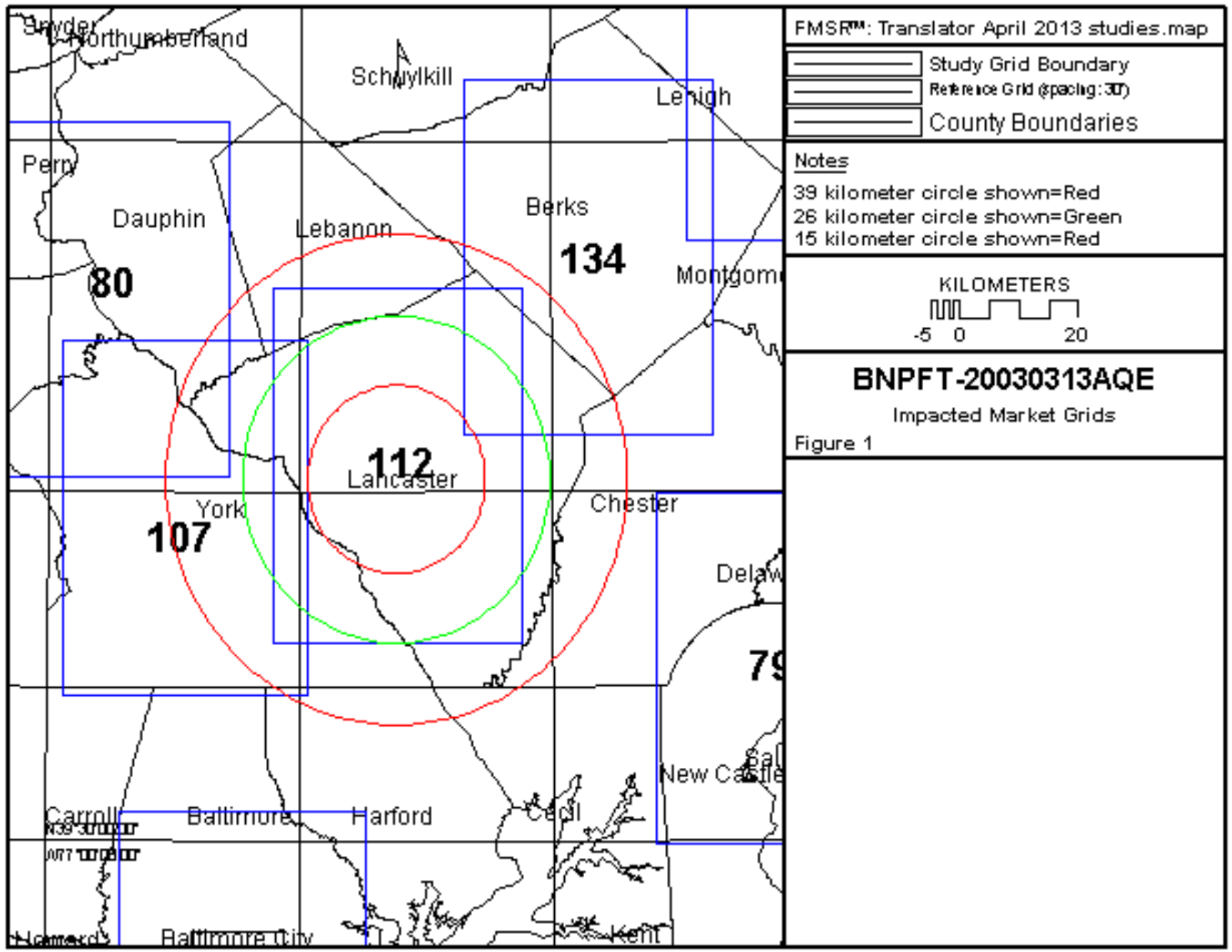
Using the Commission's LPFM6 program for each of the three markets, it was determined that channel 292 and adjacent channels 291 and 293 are not available for LPFM use anywhere in the Reading Market. Channels 292 and 293 are not available for use in the Lancaster and York Markets. Channel 291 is available for LPFM use in both Lancaster and York so further Study was undertaken.

The distance to the two nearest channel 291 LPFM gridpoints from the Lancaster LPFM6 Report was calculated using the Commissions Distance tool. This distance was found to be 16.818 kilometers at Pt #852 and 15.75 kilometers at Pt #819. Because these distances are greater than 15 kilometers this proposal does not preclude LPFM opportunities on channel 291 in the Lancaster Market Grid.

The distance to the nearest channel 291 LPFM gridpoint from the York LPFM6 Report was calculated using the Commissions Distance tool. This distance was found to be 15.914 kilometers from Pt #051. Because this distance is greater than 15 kilometers this proposal does not preclude LPFM opportunities on channel 291 in the York Market Grid.

The LPFM6 Reports and Distance Calculations follow

Because no LPFM grid points are affected, this proposal passes all Market Grid Tests.


Snyder
Northumberland
Schuylkill
Lehigh
Perry
Dauphin
Lebanon
Berks
134
80
Montgom
112
Lancaster
York
107
Chester
Delaw
79
New Castle
Carroll
Baltimore
Harford
Cecil
Kent
Baltimore City
FMSR™: Translator April 2013 studies.map
Study Grid Boundary
Reference Grid (spacing: 30')
County Boundaries
Notes
39 kilometer circle shown=Red
26 kilometer circle shown=Green
15 kilometer circle shown=Red
KILOMETERS
-5 0 20
BNPFT-20030313AQE
Impacted Market Grids
Figure 1

Untitled

Reading, PA
Latitude 40-20-08
Longitude 075-55-38
Grid Size 31 x 31
Micro FM 100 Watts at 30m HAAT
Co-Channel and 1st Adjacent Protected
2nd Adjacent Channel Not Protected
3rd Adjacent Channel Not Protected
I.F. Not Protected
TV Channel 6 Protected
CP Records Protected
APP Records Protected
FM Translators Protected
TV Channel 6 Translators/LP Protected
Auc83 FX App Records Not Protected

Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail
200	0	220	0	240	0	260	0	280	0
201	0	221	0	241	0	261	0	281	0
202	0	222	0	242	0	262	0	282	0
203	0	223	0	243	0	263	0	283	0
204	0	224	0	244	0	264	0	284	0
205	0	225	69	245	0	265	0	285	0
206	0	226	0	246	0	266	0	286	0
207	0	227	0	247	0	267	0	287	0
208	0	228	16	248	0	268	0	288	0
209	0	229	0	249	0	269	0	289	0
210	0	230	0	250	0	270	0	290	0
211	0	231	0	251	0	271	0	291	0
212	0	232	0	252	0	272	0	292	0
213	0	233	0	253	8	273	0	293	0
214	0	234	0	254	0	274	0	294	0
215	0	235	0	255	0	275	0	295	0
216	0	236	0	256	0	276	0	296	201
217	0	237	0	257	0	277	0	297	0
218	0	238	0	258	0	278	0	298	0
219	0	239	0	259	0	279	0	299	0
								300	7

Total	301

Total allotments, least preclusive spacing: 8
Total allotments, most preclusive spacing: 7

Lancaster, PA
Latitude 40-02-16
Longitude 076-18-21
Grid Size 31 x 31
Micro FM 100 Watts at 30m HAAT
Co-Channel and 1st Adjacent Protected
2nd Adjacent Channel Not Protected
3rd Adjacent Channel Not Protected
I.F. Not Protected
TV Channel 6 Protected
CP Records Protected
APP Records Protected
FM Translators Protected
TV Channel 6 Translators/LP Protected
Auc83 FX App Records Not Protected

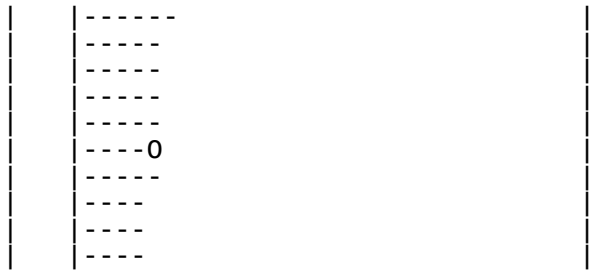
Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail
200	0	220	0	240	0	260	49	280	0
201	0	221	0	241	0	261	0	281	0
202	0	222	0	242	0	262	0	282	0
203	0	223	0	243	16	263	0	283	12
204	0	224	0	244	0	264	0	284	25
205	0	225	3	245	0	265	0	285	0
206	0	226	0	246	0	266	0	286	0
207	0	227	0	247	0	267	0	287	0
208	0	228	0	248	0	268	0	288	0
209	0	229	0	249	0	269	0	289	0
210	0	230	0	250	0	270	0	290	0
211	0	231	0	251	14	271	0	291	158
212	0	232	0	252	0	272	0	292	0
213	0	233	0	253	0	273	0	293	0
214	0	234	0	254	0	274	0	294	0
215	0	235	0	255	11	275	9	295	0
216	0	236	0	256	0	276	0	296	665
217	0	237	32	257	0	277	0	297	0
218	0	238	340	258	0	278	0	298	0
219	0	239	55	259	1	279	0	299	0
								300	0

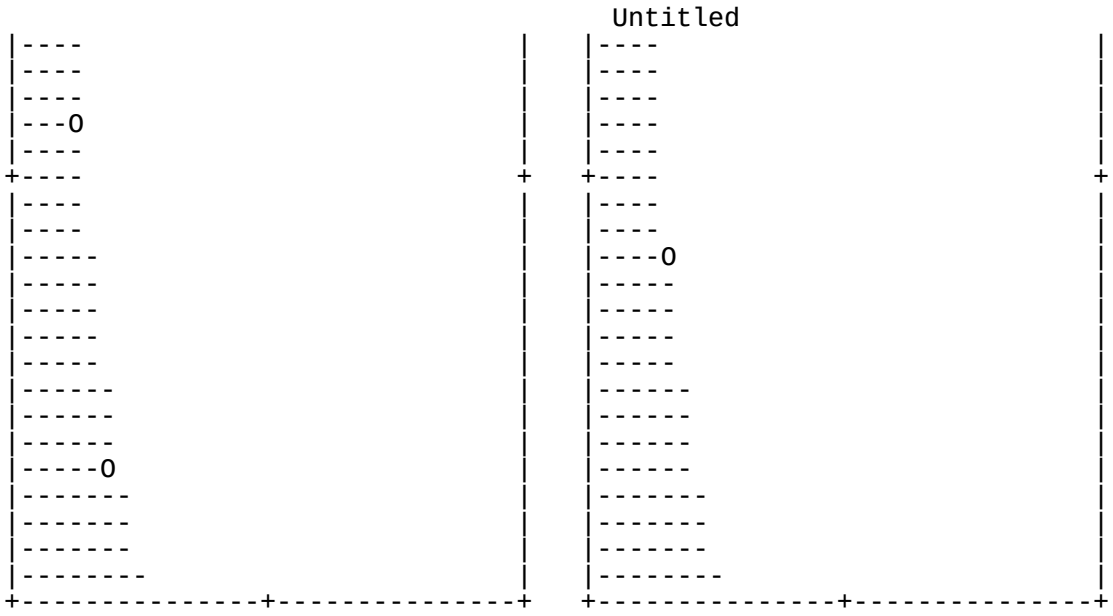
Total	1390

Total allotments, least preclusive spacing: 25
Total allotments, most preclusive spacing: 20

Lancaster, PA
Latitude 40-02-16
Longitude 076-18-21
Least preclusive siting
Availability of Channel 291 (X)

Lancaster, PA
Latitude 40-02-16
Longitude 076-18-21
Most preclusive siting
Availability of Channel 291 (X)





Point #806 at 40-17-16 076-28-21
Point #855 at 40-04-16 076-30-21
Point #780 at 39-51-16 076-28-21
Point #819 at 39-59-16 076-29-21
Point #832 at 40-12-16 076-29-21

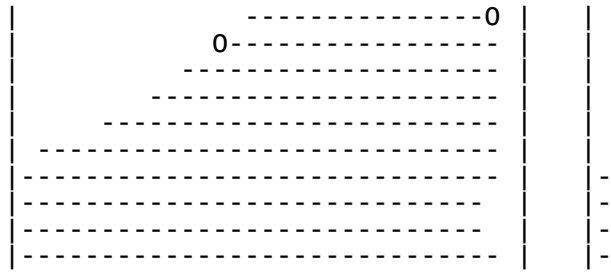
York, PA
Latitude 39-57-45
Longitude 076-43-41
Grid Size 31 x 31
Micro FM 100 Watts at 30m HAAT
Co-Channel and 1st Adjacent Protected
2nd Adjacent Channel Not Protected
3rd Adjacent Channel Not Protected
I.F. Not Protected
TV Channel 6 Protected
CP Records Protected
APP Records Protected
FM Translators Protected
TV Channel 6 Translators/LP Protected
Auc83 FX App Records Not Protected

Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail
200	0	220	0	240	0	260	0	280	0
201	0	221	0	241	0	261	0	281	0
202	0	222	0	242	0	262	38	282	0
203	0	223	0	243	73	263	0	283	4
204	0	224	0	244	0	264	0	284	0
205	0	225	0	245	0	265	0	285	0
206	0	226	0	246	0	266	0	286	0
207	0	227	0	247	0	267	0	287	0
208	0	228	0	248	0	268	0	288	0
209	0	229	0	249	21	269	0	289	0
210	0	230	6	250	0	270	0	290	0
211	0	231	0	251	39	271	0	291	887
212	0	232	0	252	0	272	23	292	0
213	0	233	0	253	0	273	0	293	0
214	0	234	0	254	0	274	0	294	0
215	0	235	0	255	121	275	0	295	0
216	0	236	0	256	0	276	0	296	389
217	0	237	15	257	0	277	0	297	284
218	0	238	616	258	0	278	0	298	0
219	0	239	813	259	50	279	0	299	0
								300	0

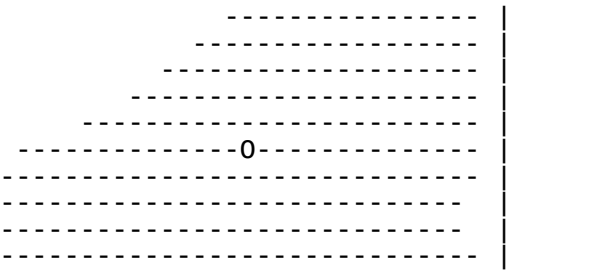
Total	3379

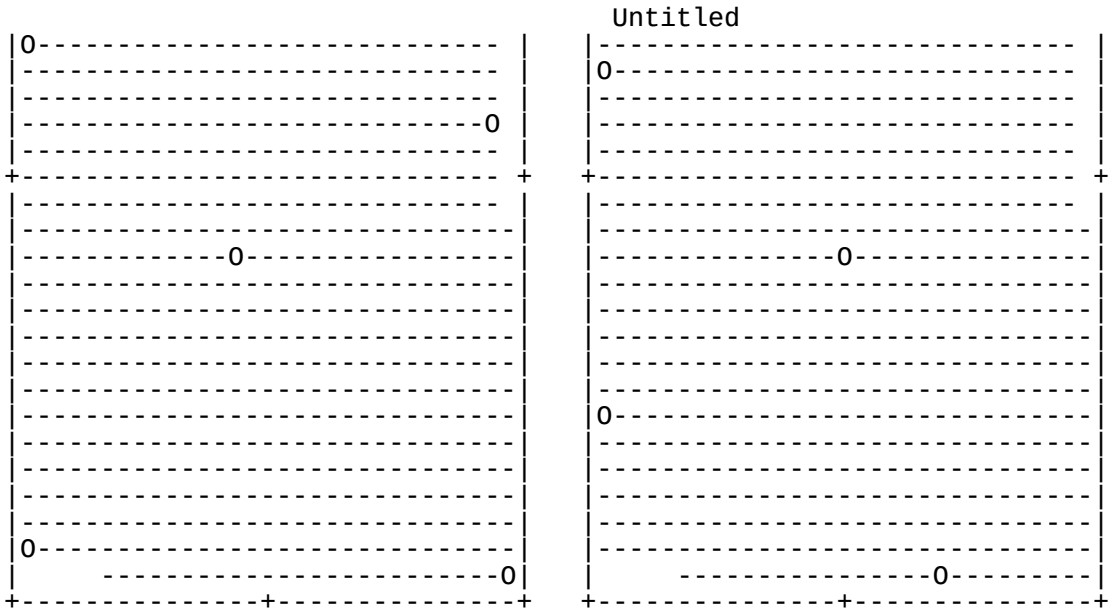
Total allotments, least preclusive spacing: 37
Total allotments, most preclusive spacing: 31

York, PA
Latitude 39-57-45
Longitude 076-43-41
Least preclusive siting
Availability of Channel 291 (X)



York, PA
Latitude 39-57-45
Longitude 076-43-41
Most preclusive siting
Availability of Channel 291 (X)





Point #062 at 40-12-45 076-29-41
Point #588 at 40-11-45 076-46-41
Point #951 at 40-02-45 076-58-41
Point #932 at 39-43-45 076-58-41
Point #001 at 39-42-45 076-28-41
Point #049 at 39-59-45 076-29-41
Point #540 at 39-54-45 076-45-41

Point #478 at 39-54-45 076-43-41
Point #491 at 40-07-45 076-43-41
Point #280 at 39-42-45 076-37-41
Point #937 at 39-48-45 076-58-41
Point #950 at 40-01-45 076-58-41

Find Distance and Azimuths Between 2 Sets of Coordinates -- Results

Distance between

N Latitude 40 1 4.00, W Longitude 76 18 32.00 (Point 1)

and N Latitude 40 1 16.00, W Longitude 76 30 21.00 (Point 2)

16.818 kilometers; 10.450 miles

Azimuth from point 1 to point 2 = 271.33°
Azimuth from point 2 to point 1 = 91.20°

Another Distance Computation?

Use Sprong to find the terminal or end coordinates, given a bearing and a distance.

This program is located at http://www.fcc.gov/fcc-bin/audio/distance.html

Federal Communications Commission
445 12th Street SW
Washington, DC 20554
More FCC Contact Information...

Phone: 1-888-CALL-FCC (1-888-225-5322)
TTY: 1-888-TELL-FCC (1-888-835-5322)
Fax: 1-866-418-0232

Find Distance and Azimuths Between 2 Sets of Coordinates -- Results

Distance between

N Latitude 40 1 4.00, W Longitude 76 18 32.00 (Point 1)

and N Latitude 39 59 16.00, W Longitude 76 29 21.00 (Point 2)

15.750 kilometers; 9.787 miles

Azimuth from point 1 to point 2 = 257.80°
Azimuth from point 2 to point 1 = 77.69°

Another Distance Computation?

Use Sprong to find the terminal or end coordinates, given a bearing and a distance.

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Fax: 1-866-418-0232

Find Distance and Azimuths Between 2 Sets of Coordinates -- Results

Distance between

N Latitude 40 1 4.00, W Longitude 76 18 32.00 (Point 1)

and N Latitude 40 1 45.00, W Longitude 76 29 41.00 (Point 2)

15.914 kilometers; 9.888 miles

Azimuth from point 1 to point 2 = 274.64°
Azimuth from point 2 to point 1 = 94.52°

Another Distance Computation?

Use Sprong to find the terminal or end coordinates, given a bearing and a distance.

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