

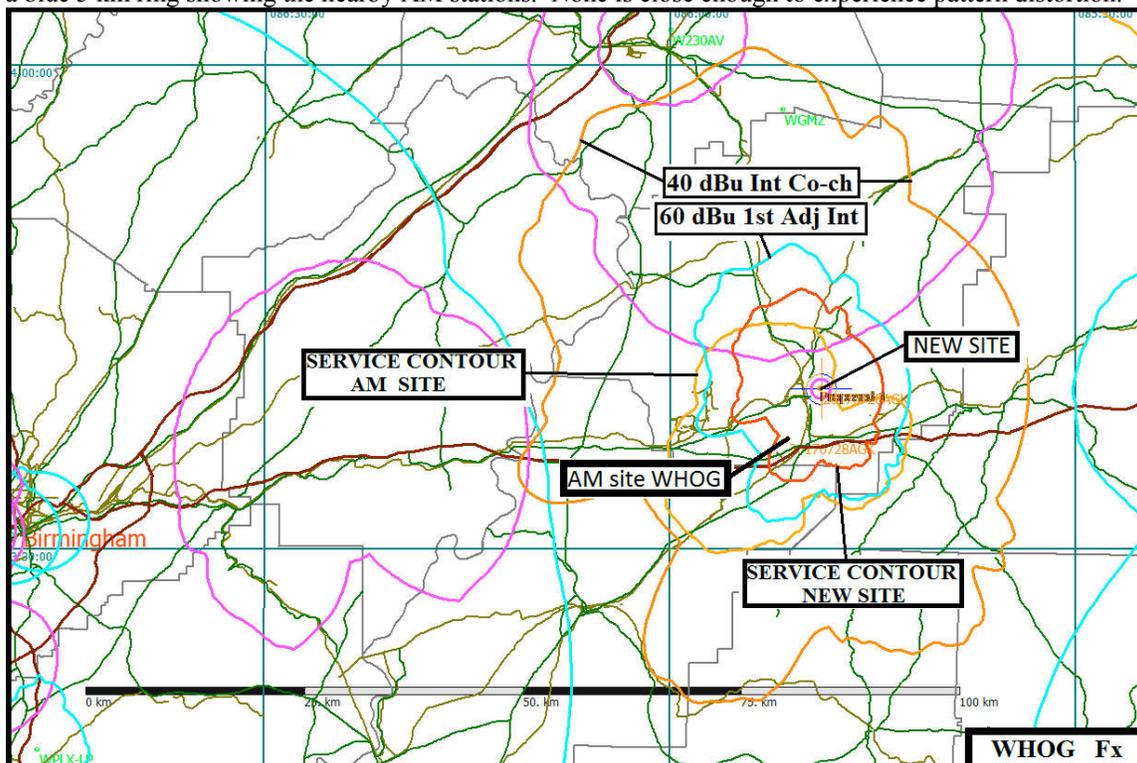
Engineering Report (EE-1): Engineering Statement in support of
FCC FORM 349

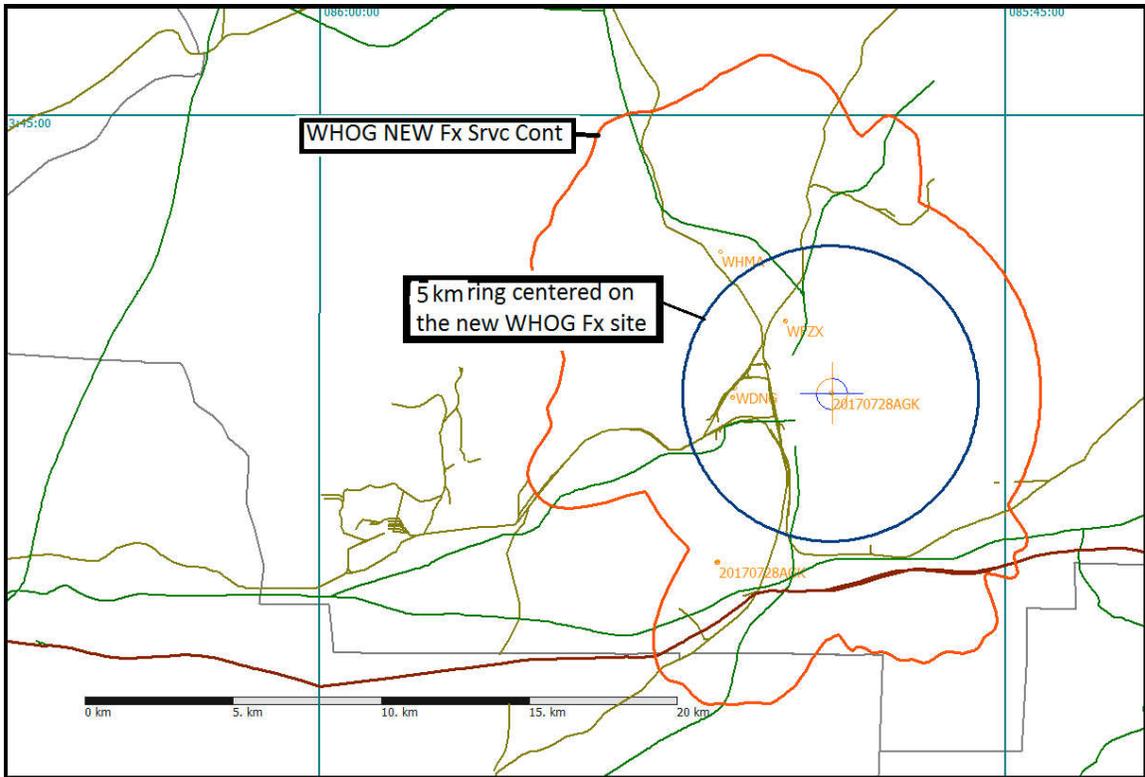
APPLICATION FOR AUTHORITY TO CONSTRUCT OR MAKE CHANGES IN AN FM TRANSLATOR OR FM
BOOSTER STATION
(For a New FM Translator)

Hobson City Broadcasting Co, the owner of WHOG, Hobson City, AL seeks to modify a pending translator application which would be located on their AM transmitter tower. The location is unacceptable due to the necessity to run a full or partial EA at the AM site. No construction or excavation was planned for the 95' lattice tower. The site is rated non-hazardous by the FAA and has been ever since the station began operations back in the early 1990. The owner of WHOG has decided to move their proposed translator to a mast at his home about 4 miles north of his AM site. Their proposed translator will operate on channel 228 and is shown below. It will produce no interference to other broadcasters. They will operate with a power of 250 Watts ERP. This engineering is provided to support the application for a new translator from the filing window, Auction 99. The site has an elevation of 270 meters AMSL and the antenna C/R is 13 meters AGL. There are 2 AM stations within 5.0 km. Both are Class "C" non-directional AM Stations at a distance greater than 0.8 km from the proposed site. From the map below, one can see that the proposed ch228 translator clears all spacing requirements for 47CFR74.1204.

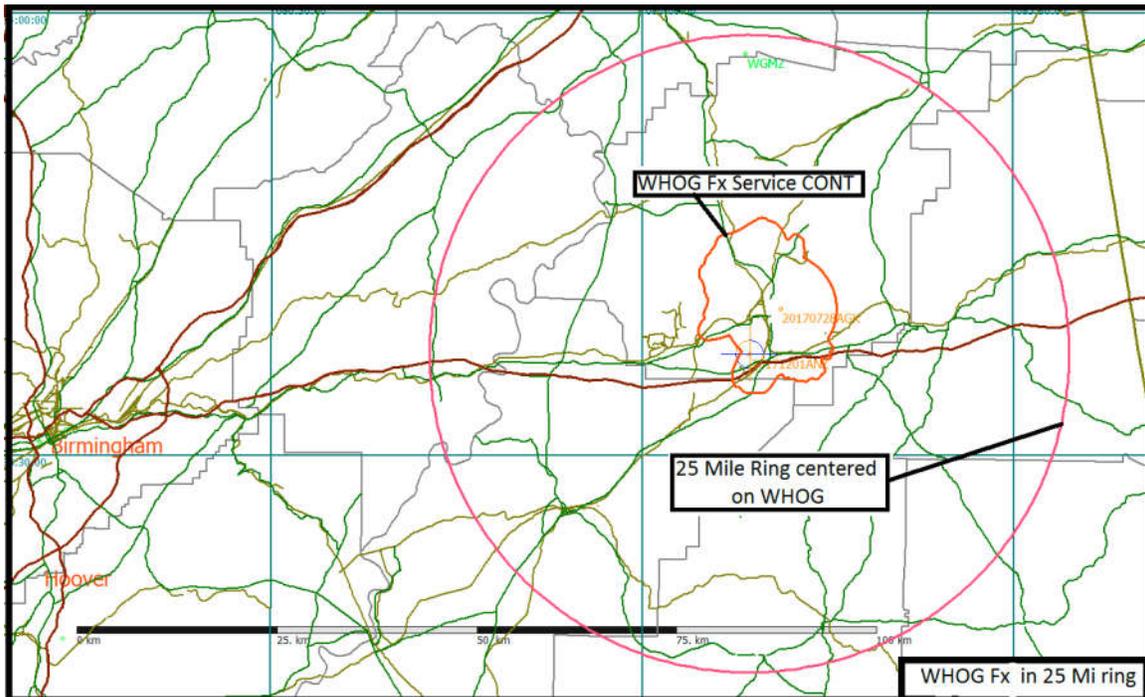
The color coding means: Gold = co-chnl 40 dBu interfering, Cyan = 1st Adj 54 dBu interfering, Violet = 2nd or 3rd Adj interfering contour. Similar colors of the affected stations must not cross those of the proposed station. None cross so this proposed translator is clear of 74.1204 interference as depicted in the map below.

The map depicted below shows the nearby Standard Broadcast Stations. Below the first map is a map with a blue 5 km ring showing the nearby AM stations. None is close enough to experience pattern distortion.





The two stations within 5 km of the new site are WFZX and WDNZ both AM class "c" stations. Both are greater than 0.8 km from the new site. WHMA A CLASS "b" directional is 6 km away. Note the ring is 5.0 km.



Notice that the WHOG new Translator is wholly contained within a 25 mile ring centered on the WHOG AM transmitter site.

NEPA The rf exposure from the proposed translator is 183.78 uV/cm² based on "FM Model". This is assuming that the antenna develops 250W ERP and is up 20 feet (7m) above the roof of a 2-story house. Less than 92% of the public exposure limits is Impressed at the roof level as set forth in the OET Bulletin 65. The structure holding the translator antenna will be a TV mast attached to the side of the house. The mast is not lit and has no ASRN as it is under 60 meters. The applicant understands that if work is to be done in the vicinity of the antenna (within 10 meters of it) then the power must be reduced or turned off for the duration of the work. There are no public airports within 5 miles of the proposed site.

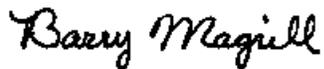
Remarks:

The Calculations in this report are based on the FCC 30 arc second data. The calculations were made on rfInvestigator, software from RF software developed in Gainesville, Florida 32609. Other calculations were run on the FCC FM Model at <https://www.fcc.gov/general/fm-model>. Hazards to air navigation were checked on Towair at: <http://wireless2.fcc.gov/UlsApp/AsrSearch/towairSearch.jsp>

The maximum ERP is limited by interference.

The proposal is sufficiently distant from all facilities mentioned in 73.1030(a), (b) & (c) so that notification under 73.1030 is not required.

Barry Magrill, PE



Sept 25, 2018
FL Reg 45305