



# **FM TRANSLATORS FOR AM SHARPENING THE SHOEHORN & NEW PROPOSALS FOR INTERFERENCE RESOLUTION**



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v4

# TRANSLATORS ARE NOW THE #1 RADIO SERVICE

- As of April: Over 7500 on the air.
- FM Full Power stations: 6754

# THE WORRISOME NEWS

- In many sizeable markets, we're down to "cookie dust" for new frequencies.
- In most cases, new translators will be bumping up against co or first-adjacent stations, and require directional antennas.
- Some of the first-adjacent stations may be full-power rim-shots, that are trying to cover the core market.
- We're promulgating a vulnerable secondary service, that can be a make-or-break lifeline to AM stations.



# THE GOOD NEWS ON INTERFERENCE TO RIM SHOTS

- Many of the first-adjacent rim-shots are too weak for meaningful home radio reception.
- But they *might* continue to work just fine in cars, perhaps even in the presence of your first-adjacent translator.
- For car radios: First-adjacent might be the new 2<sup>nd</sup>-adjacent.
  - 1999 OET study: Car radios averaged 10dB better first-adjacent selectivity than the FCC standard of +6dBu
  - At the other end, portable radios averaged 19dB worse than the FCC standard. Other “home” radios were in between.
  - In our experience, today’s car radios are better yet in rejecting 1<sup>st</sup>-adjacent interference, than in 1999.
- Interference standards are not based on the crappiest radios; nor should they be.

# UNBUILT LPFMs OPEN UP NEW CHANNELS

- High LPFM attrition rate: Out of 1,971 granted in the 2013 window, 17% were never built.
- If not built, 422 more are due to expire in the next year.
- These “dead” LPFMs are usually on channels suitable for translators.
- Dead LPFMs may linger for a while on CDBS records.



# OUR STRATEGY

- Usually better to “kiss” a 1<sup>st</sup>-adjacent than a co.
- If possible, listen to candidate channels in person. Client drive tests are unreliable.
- Use tight back-side nulls on directionals.  $\frac{1}{4}$ -wave offset yagis can achieve 40dB front-to-back ratio.
- Try to avoid bumping into stations with unique formats and rabid listeners.
- Regardless of the contours, commercial stations care about listeners in their ratings survey market. Outside the market – not so much.
- Carefully explain the secondary nature of translators to the client. (Then cross your fingers.)



# NAB PROPOSED RULEMAKING

- Amends 74.1233 to allow translators that receive interference complaints to move to any channel on the dial (instead of only to adjacent or I.F. channels). Currently the Rules allow “displaced” translators to move to non-adjacent channels.
- Requires at least 6 interference complaints (in larger markets) to trigger a mandatory response from the translator.
- **MB RM-11787**
- PN was issued on 4/27/17. Comments are open until 5/27/17

# WISH LIST

- Allow translators similar flexibility as LPFMs. Under 73.870, LPFMs can move to any open frequency “upon a technical showing of reduced interference”. This can be interference caused *or* received.
- Allow translators this kind of flexibility at any stage of the process, even if there are no formal interference complaints.
- With the band so saturated, the prime objective should be to maximize the number of signals with the minimum amount of interference. Everything else is superfluous.
- We believe that the FCC can and should allow mutually-exclusive translator applicants to move to any open channel (if no adjacent or I.F. channel is available), in the upcoming windows. No prior Rule change should be necessary.



# DARE I SAY: EXPAND THE FM BAND?

- Is expanding the FM band down to 76MHz (Ch 5 & 6) a *completely* dead issue?
  - No new Ch's 5 or 6 were assigned in the Reverse Auction
  - Japan, China, and Brazil are expanding their FM bands.
  - These and others, including Canada & Mexico, are migrating local AMs to FM channels
  - Hundreds of radios that tune 76-108MHz are available now.
  - Analog FM still has legs. Perhaps more than any other “old” technology.





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