

# Low-Power FM: The Facts Are In...

Results have been released from a long anticipated engineering study ordered by the FCC to determine whether small community radio stations could cause interference to the signals of full power broadcasters. The study, conducted by the MITRE Corporation, recommended the lifting of burdensome restrictions imposed by Congress in December of 2000 upon the new Low Power FM (LPFM) radio service.

## FM interference facts

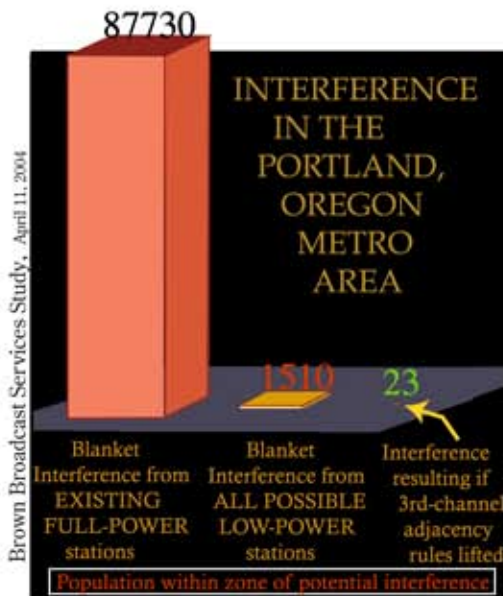


A low power radio station does not interfere with incumbent radio stations any more than a streetlight in the Bronx can interfere with seeing the Chrysler building in the New York City skyline. Three feet from the streetlight, if you are staring straight at the lamp? Yes. If you're within a hundred feet from the lamppost, and the street light happens to be exactly lined up with your view of the Chrysler building? Maybe a little. In general? No. As a matter of serious policy consideration? Of course not. MITRE has proven that interference from LPFM is not a concern.

**At a cost of 2.2 million taxpayer dollars, MITRE has hunted and hunted for interference by LPFM stations, and found none.**



As predicted by the FCC and myriad LPFM advocates, only small zones of interference directly around the transmitter site of the LPFM were found. No significant LPFM-related interference was ever identified at more than 333 meters from an LPFM transmitter. In the very worst case found, a fraction of a percent (.13%) of receivers in the service area of a full power station could be affected. As the report states, "In most cases, this fraction is orders of magnitude smaller."



Low power impact on new digital radio channels and radio reading services to the blind were tested, and no significant problems were found. In 2000, the FCC had legally precluded low power stations from being sited near reading services long before legislation went to Congress. Broadcasters continue to cite this supposed problem to this day to play emotionally on sympathy for people with disabilities, but there is not basis in fact for any threat to reading services for the blind from low power radio.

# Low Power Background

The Low Power Radio Service was launched in January 2000, but soon after was curtailed in most metropolitan areas by a debilitating act of Congress requiring more study before most licenses could be issued. Under pressure from the large broadcasting interests, key Congressmen slipped language into an Appropriations Rider – language that eviscerated the FCC's new rules in November of 2000. Under the new rules, about 75% of low power FM opportunities were eliminated, leaving no stations available in any of the top 50 American cities. Smaller towns, further away from the major metropolitan areas and their concentrations of mega-wattage radio stations, were less affected by the bill and allowed to build.

Over 750 low power radio stations are on the air in small towns around the United States today, run by schools, churches activist groups, unions and other civil society groups. If adopted by an act of Congress, MITRE's recommendations would allow thousands of small community groups, in cities all across the US, to build these vibrant new neighborhood institutions of democratic media.



Photos: Jacques-Jean Tiziou  
[www.jjtiziou.net](http://www.jjtiziou.net)



# What Would Happen If A Low Power Station Did Cause Interference?

The MITRE study found that the level of potential interference from low power stations was almost ridiculously small. A study by Brown Broadcasting Services found that full power stations routinely cause thousands of times more interference than could possibly come about from low power stations. But if a low power station did cause interference to a listener, what would happen?

The FCC decided in 2000 to hold low power stations to have the same standard as full power broadcasters with rule 73.318 in connection with "blanketing interference," the form of interference that can happen in the immediate vicinity of all broadcast transmitters.

The FCC also imposed two additional rules for low power stations, 73.809 and 73.810. These three rules, cumulatively, address any possible interference scenario and force a low power station to deal with interference complaints or shut down. The MITRE report included further suggestions for minor rule changes that could prevent even this remote possibility of a reception problem, if deemed necessary. Advocates and the FCC believe that the more extensive complaint procedure developed by the FCC especially for low power radio is more than adequate for ferreting out the few cases of interference that may occur.

Despite public notices and a 1-800 number, there were no complaints from the public related to any low power radio test site. Full power broadcast lobbyists continue to complain about laws that are actually far stricter for low power radio than what full power stations, with their higher power and greater interference levels, are required to comply with.

*As usual, the National Association of Broadcasters wants stricter rules for their competitors than for their members.*

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