

3. New stations authorized under the pending micro-radio rules will have a primary status on channels 171 through 200.
4. Full-power NTSC stations operating on Channel 6 will sunset during the Digital Television (DTV) transition by the year 2006⁴.
5. NTSC LPTV, translator and booster stations will maintain their secondary status on channel 6 and will be encouraged to change channels.
6. The DTV Table of Allotments will be amended to reallocate the two DTV stations that have been allocated on Channel 6. These stations are in New Haven, CT and Juneau, Alaska⁵.
7. In markets where a station on Channel 6 is operating, micro-power stations will be authorized on channels 201-300 at reduced power in secondary status. Once the Channel 6 station discontinues operation, the micro-power stations will be allowed to migrate to channels 171-200 with their full authorized power and primary status.
8. Micro-power stations desiring to operate on channels 201 through 300 when interference to Channel 6 is not an issue may be licensed under secondary status with reduced power.
9. Part 15 would be amended to require manufacturers who produce or import radio receivers in the United States capable of receiving FM broadcast signals between 88 and 108 MHz must now also be able to receive the channels between 82-88MHz. Digitally synthesized radios must tune the 200kHz channels between 82.1 and 87.9 MHz.

10. The remaining licensees of NCE-FM Class D (Secondary) stations may choose to relocate their stations to the new 82-88 MHz band. Once the station relocates to the new band, the Class D station will be able to increase power and be reclassified as primary. No other NCE-FM, full power station, translator or booster will be authorized operation in the 82-88 MHz band.
11. Part 90 would be amended to allow for the establishment of Travelers Information Stations on channels 171-199 on a secondary basis.
12. Considerations will be made for stations on Channels 171-173 in relation to interference to TV Channel 5⁶.
13. To reduce the administrative burden to the FCC, channel assignments will be handled by volunteer frequency coordinators in the same way that the Amateur Radio Service does coordination.

DETAILS

1. Expand the FM band by 6 MHz

As we analyze the spectrum adjacent to the current FM Broadcast Band (88-108MHz), the International Table of Allocations show the spectrum above 108 MHz allocated to the Aeronautical Radionavigation service. The spectrum below 88 MHz is allocated to Broadcasting in ITU Region 2.

After the DTV conversion, there will only be two Channel -6 television stations allocated to stations in the United States. There will be no stations allocated in the Mexican Border region on Channel 6 after the conversion.

Currently in Japan, the spectrum between 82-88 MHz is used for a portion of their FM sound broadcasting band⁷.

2. Create 30 new FM channels in the band between 82-88 MHz.

In my petition, I am asking that the new channels be numbered like the channels between 88-108MHz.

Here is a summary of these new channel numbers:

171-82.1	176-83.1	181-84.1	186-85.1	191-86.1	196-87.1
172-82.3	177-83.3	182-84.3	187-85.3	192-86.3	197-87.3
173-82.5	178-83.5	183-84.5	188-85.5	193-86.5	198-87.5
174-82.7	179-83.7	184-84.7	189-85.7	194-86.7	199-87.7
175-82.9	180-83.9	185-84.9	190-85.9	195-86.9	200-87.9 ⁸

3. Primary Status for stations between 82-88 MHz.

As these stations do not pose an interference threat to other FM broadcasters, they will be afforded primary status on channels 171-200. Stations proposing operation on channel 200 must take into consideration possible interference to stations on Channel 201 (88.1 MHz).

4. Sunset existing NTSC TV stations.

As a result of the DTV proceedings, NTSC TV stations on Channel-6 will be going off the air. We are asking that no new TV stations (full power, LPTV, translator and booster) be assigned to Channel 6.

5. Existing Channel 6 NTSC translators and LPTV stations can remain in secondary status.

We will encourage the existing translator and LPTV stations to move to another channel⁹. We will not block micro-power stations from establishing stations (remember, they have the primary status). Micro-power stations can also opt to use channels 201-300 with reduced power and secondary status. Remember, translators and LPTV stations operating NTSC on Channel 6 will eventually go away as NTSC gets obsolete.

6. Reallocate two DTV stations assigned to Channel 6.

Under the current allotment table, the number one radio market is impeded from using Channels 171-200 due to a DTV allocation in New Haven, CT. I am asking that station be reallocated so New York City will have access to the new band.

An additional station in Juneau, Alaska also has been assigned to DTV Channel 6. This station can also be reallocated.

7. Allow micro-power stations to operate on Channels 201-300 in current Channel 6 markets.

When a micro-station is licensed in a market which is within the Grade-B contour of a TV Channel 6 station, the Frequency Coordinator will assign a channel for secondary operation on Channels 201-300 and will assign a future allotment for primary operation on Channels 171-200. Once the Channel 6 operation sunsets, the micro-power station can migrate to its primary channel assignment.

8. Micro-power stations may continue to operate on Channels 201-300.

If a micro-power station elects to remain on Channel 201-300, they may do so. Their assignment will remain secondary and they risk losing their primary (channel 171-200) coordination to another licensee. If a micro-power station stays on Channel 201-300 and a full power or translator station makes major change or a new full power or translator station is established, the micro-power station will be required to change frequency to resolve interference. If they move to another channel between 201-300, they will still have secondary status.

9. Require manufacturers to produce radios which receive the new band.

In this petition, we ask the Commission to amend Part 15 to require all radios manufactured or imported into the United States capable of receiving 88-108MHz to also be able to receive 82-88 MHz.

The reception of 82-88 MHz can be on the same "band" as the 88-108 band or it could be on a separate "band".

Many of the radios which have a "TV band" and a slide rule style dial are capable of picking up stations in the new band by tuning around Channel 6. Some of these radios have the FM band and the "VHF Low" TV channels contiguous.

Japan, a country which is a major supplier and user of consumer electronics has their FM sound broadcasting band from 76-92 MHz. All FM radios sold in that country are able to pick up this band. Some higher-end radio receivers such as the Sony line of short-wave receivers are capable of receiving 76 to 108 MHz on a single continuous band.

It should not be a major issue for manufacturers to import these radios as the band is currently used in Japan and because the United States and Japan are the top purchasers of consumer electronics, there is a considerable market for manufacturers to include the new band. We were able to get TV set manufacturers to include UHF, let's get radio manufacturers to include the new FM band¹⁰.

10. Give Class-D Educational Stations an opportunity to improve their stations.

Under my petition, a station currently licensed as a NCE-FM Class D (secondary) could relocate to the new 82-88 MHz band. When the station relocates, they will free up a channel in the 88-108 MHz band and will receive primary status. They will also be able to increase their power comparable to those of other micro-power stations.

11. Establish Travelers Information Service (TIS) stations in the new band.

Certain licensees in Part 90¹¹ can establish FM TIS stations with reduced power levels on Channels 171-199 in areas where Channel-6 is not an issue. FM-TIS will provide local governments with a better quality signal as well as an easier to set up station vs. the traditional AM-TIS service. AM and FM TIS stations can operate together in order to provide a bi-lingual service. FM TIS stations will be secondary to micro-power FM stations.

12. Consideration must be taken to avoid interference TV Channel 5.

We must impose power and/or distance spacing restrictions on FM channels 171-173 which are near TV Channel 5 transmitters¹². I vision that the lower power FM TIS stations as well as very low power 1 watt micro stations will use these channels. We can even add rules which impose an across-the-board power

restriction on Channels 171, 172 and 173. The lower channels can also be used by temporary "event" broadcasters.

13. Frequency Coordinators would be used instead of distance spacing.

In order to reduce the administrative burden on the FCC, I am proposing that frequency coordinators be appointed on a state by state or market basis (for large markets)¹³. The coordinators who know the area would be able to know their areas and be able to assign frequencies based on various aspects such as terrain shielding and time sharing. The frequency coordinator could also be a licensee. Since licensees most likely will be limited to one station, there would be very little chance of any conflicts of interest.

I am volunteering to be the frequency coordinator for the entire state of Arizona.

IN CONCLUSION

This proposal would satisfy the needs of the micro-radio broadcasters by providing them with a opportunity to have a primary station with higher power in their own band or have a lower powered station with the possibility of being moved or shut down, with lower power in the conventional FM broadcast band.

This proposal will more effectively use 6 MHz of spectrum which in the future, will eventually only be used by primary status stations in New Haven, CT and Juneau, Alaska under current rulemaking.

This proposal addresses the NAB, NPR and other broadcasters comments regarding interference and concerns about the implementation of IBOC¹⁴

This proposal addresses the supporters of micro-radio by providing them with a means of operating "higher" powers without stepping on the toes of existing broadcasters.

This proposal takes care of the Class-D NCE-FM (Secondary) problem once and for all.

ABOUT THE PETITIONER

I am a licensed Advanced Class radio amateur with callsign KJ7MU. I will be applying for a micro-radio license if the Commission approves the service. I also have operated telephone entertainment and internet information services.



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APPENDIX A

Locations of Full Power NTSC Broadcast Stations in the United States on Channel 6.
Allotments on 82-88 MHz for sound broadcasting would not be available in these markets until after 2006.

Birmingham, AL	Mountain View, AR	Kingman, AZ	Tucson, AZ
Eureka, CA	Sacramento, CA	San Luis Obispo, CA	Denver, CO
Durango, CO	Miami, FL	Orlando, FL	Augusta, GA
Thomasville, GA	Kailua Kona, HI	Davenport, IA	Nampa, ID
Pocatello, ID	Indianapolis, IN	Ensign, KS	Paducah, KY
New Orleans, LA	New Bedford, MA	Portland, ME	Alpena, MI
Lansing, MI	Marquette, MI	Austin, MN	Sedalia, MO
Greenwood, MS	Billings, MT	Butte, MT	Wilmington, NC
Fargo, ND	Minot, ND	Hayes Center, NE	Omaha, NE
Carlsbad, NM	Schenectady, NY	Columbus, OH	Tulsa, OK
Portland, OR	Johnstown, PA	Philadelphia, PA	Reliance, SD
Knoxville, TN	Beaumont, TX	Corpus Christi, TX	San Angelo, TX
Temple, TX	Texarkana, TX	Wichita Falls, TX	Richmond, VA
Spokane, WA	Milwaukee, WI	Superior, WI	Bluefield, WV
San Juan, PR			

The following Mexican NTSC Channel 6 stations are close to the U.S. border and may impact deployment of sound broadcasting on 82-88 MHz in certain border cities.

MEXICAN CHANNEL 6 LOCATION	US MARKET AFFECTED
Tijuana, BCN	San Diego, CA
Ojinaga, CHIH	Presidio, TX
Piedras Negras, COA	Eagle Pass, TX

The following Canadian NTSC Channel 6 stations are close to the U.S. border and may impact deployment of sound broadcasting on 82-88 MHz in certain border cities.

CANADIAN CHANNEL 6 LOCATION	US MARKET AFFECTED
Prince Rupert, BC	Ketchikan, AK
Victoria, BC	Everett & Bellingham, WA
Bon Accord, NB	Caribou/Presque Isle, ME
Belleville-Desertonto, ON	Rochester & Syracuse, NY
Dryden, ON	Fort Frances, MN
Ottawa, ON	Canyon, Brockville, Potsdam, NY
Montreal, PQ	Burlington, VT

FOOTNOTES

1. "Petition for a Microstation Radio Broadcasting Service" – RM-9208, "Proposal for the Creation of a Low Power FM (LPFM) Broadcast Service" – RM-9242 and "Establish Event Broadcast Service" – RM-9246.
2. The radio spectrum between 82-88 Megahertz (MHz) is currently used by Television (TV) Broadcast stations on a primary basis. This spectrum is also used by Low Power Television (LPTV), TV Translator and TV Booster stations. This spectrum is commonly known as "TV Channel 6".
3. Channel 200 (87.9 MHz) is authorized to Class-D Non-Commercial Educational (NCE-FM) secondary stations to use as a last resort if no other channels between 201 and 300 are available for use.
4. 5th Report And Order on MM Docket No. 87-268 paragraph 99 relating to recovery of NTSC spectrum.
5. Memorandum Opinion and Order on Reconsideration of 6th Report And Order on MM Docket No. 87-268 Appendix B – Table of Allotments shows the NTSC station on Channel 59 in New Haven, CT has been reallocated to DTV Channel 6 and the NTSC station on Channel 3 in Juneau, AK has been reallocated to Channel 6.
6. TV Channel 5 occupies the spectrum between 76-82 MHz which is adjacent to the band proposed in this petition.
7. In Japan, the spectrum between 76-92 MHz is used for sound broadcasting. The spectrum between 92-108 MHz is used for television broadcasting.
8. Channel 200 (87.9 MHz) has already been designated in Part 73 of the FCC Rules.
9. Per Part 74 of the FCC Rules, LPTV, TV Translators and TV Boosters are secondary to full-power TV Broadcast stations.
10. FCC Rules §15.117
11. FCC Rules §90.242
12. The audio carrier of NTSC TV Channel 5 is at 81.75 MHz. Operations of FM stations near the band edge may pose an interference threat to Channel 5 in the same way as stations on 88.1 through 88.5 may pose an interference threat to NTSC TV Channel 6.
13. Coordinators would be required to share coordination data with coordinators covering adjacent regions to avoid potential interference between primary stations.
14. IBOC or "In Band On Channel" would provide "...the superimposition of a digital radio signal on the same channel as the existing analog radio signal. Both could be used at the same time. Thus, without the need for additional spectrum, the developers believe they can provide a new digital radio service. They also believe that both the AM and FM digital signals will far surpass in quality their analog counterparts." – Statement of Roy Stewart, Chief, Mass Media Bureau, FCC before the Subcommittee on Communications, Committee on Commerce, Science and Technology, United States Senate on Mass Media Bureau Oversight, May 19, 1998.