

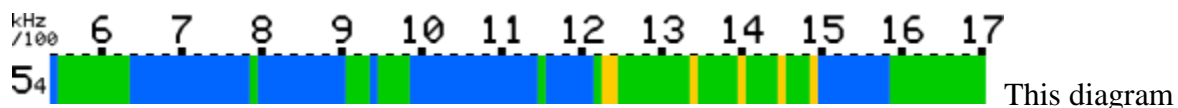
List of North American broadcast station classes

From Wikipedia, the free encyclopedia

This is a **list of broadcast station classes** applicable in much of North America under international agreements between the United States, Canada and Mexico. [Effective radiated power](#) (ERP) and [height above average terrain](#) (HAAT) are listed unless otherwise noted.

All [radio](#) and [television stations](#) within 320 kilometers (199 miles) of the [US-Canada](#) or [US-Mexico border](#) must get approval by both the domestic and foreign agency. These agencies are [Industry Canada/Canadian Radio-television and Telecommunications Commission](#) (CRTC) in Canada, the [Federal Communications Commission](#) (FCC) in the US, and the [Federal Telecommunications Institute](#) (IFT) in Mexico.

AM



illustrates how the AM radio spectrum is classified in North America.

- Clear-channel; classes A, B and D
- Regional; classes B and D
- Local; classes B and C

Station class descriptions

All domestic (United States) AM stations are classified as **A**, **B**, **C**, or **D**. ^[1]

- **A** (formerly **I**) — [clear-channel stations](#) — 10 kW to 50 kW, 24 hours.
 - Class A stations are only protected within a 750-mile (1,207-kilometer) radius of the transmitter site.
 - The old Class I was divided into three: Class I-A, I-B and I-N. [NARBA](#) distinguished between Class I-A, which were true clear-channel stations that did not share their channel with another Class I station, and Class I-B, in which a station operated with 50 kW at night but shared its channel with at least one other I-B station, requiring directional operation. This distinction was superseded by the [Regional Agreement for the Medium Frequency Broadcasting Service in Region 2](#) (Rio Agreement), which instituted the current class system.
 - The former Class I-As are omnidirectional, with the exception of 870 WWL New Orleans and 1030 WBZ Boston, which use directional antennas to put a better signal over their largest population areas.
 - Most former Class I-Bs are directional at night, although a few are also directional during days. (A handful of I-Bs did not have to use directional antennas: 680

KNBR San Francisco, 810 WGY Schenectady, 850 KOA Denver, 940 XEQ Mexico City, 1070 KNX Los Angeles and 1070 CBA Moncton. KNX and CBA were far enough apart that both could operate without using a directional antenna. XEQ is far enough from Montreal that it did not need a directional antenna. KNBR and KOA are the only Class Is on their frequency but share those frequencies with several Class II-Bs.)

- Former Class I-N stations exist only in Alaska, where they are too remote to interfere with other clear-channel stations in the contiguous 48 states. They are only held to Class B efficiency standards (although higher efficiency is acceptable).
- No new Class A stations are licensed in the conterminous United States, although the FCC states it may be possible to license additional Class A stations in Alaska.
- **B** (formerly **II** and **III**) — regional stations — 250 W to 50 kW, 24 hours.
 - Stations on the [AM expanded band](#), 1610 kHz to 1700 kHz, are limited to 10 kW days and 1 kW nights, non-directionally.
 - Several expanded band stations operate DA-N or even DA-2 with up to 10 kW during all hours, after providing proof that such operations will not cause co- or adjacent-channel interference.
 - If under 250 W at night, the antenna must be efficient enough to radiate more than 140.82 mV/m at 1 km.
- **C** (formerly **IV**) — local unlimited-time stations — 250 W to 1 kW, 24 hours.
 - Class C stations that were licensed at 100 W are [grandfathered](#).
 - Rare Class Cs operate with directional arrays, such as [KYPA](#) and [KHCB](#).
- **D** (formerly **II-D**, **II-S**, **III-S**) — current and former [daytimers](#) — Daytime 250 W to 50 kW, nighttime under 250 W or off-air.
 - [Field strength](#) is limited to 140 mV/m (millivolts per meter) at 1 km.
 - No new class D stations are licensed, with the exception of Class B stations that are downgrading their nighttime operations to Class D (i.e., less than 250 W). The station's daytime operation is then also reclassified as Class D.
 - If a Class D station is on the air at night, it is not protected from any co-channel interference.
- **TIS/HAR** — [travelers' information stations](#) / highway advisory radio stations — Up to 10 W transmitter output power. Stations within [US national parks](#) are licensed by [NTIA](#) and not the FCC.
- **Unlicensed broadcasting** — (see [low-power broadcasting](#)) — 100 mW DC input to final amplifier with a 3-meter (10-foot) maximum length radiator, no license needed, may be measured at edge of campus for school stations and neighborhood broadcasters.

Notes:

- In the Western Hemisphere ([ITU region 2](#)), [medium wave](#) AM broadcasts are on channels spaced 10 kHz apart from 530 kHz to 1700 kHz, with certain classes restricted to subsets of the available frequencies.
- With few exceptions, Class A stations can be found only on the frequencies of 540 kHz, 640 to 780 kHz, 800 to 900 kHz, 940 kHz, 990 to 1140 kHz, 1160 to 1220 kHz, and 1500 to 1580 kHz. The exceptions are cited in relevant international treaties.

- While US and Canadian Class A stations are authorized to operate at a maximum of 50,000 watts day and night (and a minimum of 10,000 watts at night, if grandfathered), certain existing Mexican Class A stations, and certain new Cuban Class A stations are authorized to operate at a higher power. Certain Mexican Class A stations are authorized to operate at less than 50,000 watts at night, if grandfathered, but may operate at up to 100,000 watts during the day.
- Class B and D stations can be found on any frequencies from 540 kHz to 1700 kHz except where frequencies have been reserved for Class C stations.
- Class C stations can be found in the lower 48 US states on the frequencies of 1230 kHz, 1240 kHz, 1340 kHz, 1400 kHz, 1450 kHz, and 1490 kHz (commonly known as "graveyard" frequencies). Other countries may use other frequencies for their Class C stations.
- American territories in ITU region 3 with AM broadcasting stations ([Guam](#) and the [Northern Mariana Islands](#)) use the 9 kHz spacing customary to the rest of the world. All stations are class B or lower.
- Canada also defines Class CC ([Carrier Current](#), restricted to the premises) and LP. (less than 100 watts)^[2]
- TIS stations can be found on any frequency from 530 kHz to 1700 kHz in the US, but may only carry non-commercial messages without music. There is a network of TISs on 1710 in New Jersey.
- [Low-power AM](#) stations located on a school campus are allowed to be more powerful, so long as their signal strength does not exceed roughly 14 to 45 $\mu\text{V/m}$ (microvolts per meter) (depending on frequency) at a distance of 30 meters (98.4 ft) from campus.

Former system

AM station classes were previously assigned [Roman numerals](#) from I to IV in the US, with subclasses indicated by a letter suffix. Current class A is equivalent to the old class I; class B is the old classes II and III, with class D being the II-D, II-S, and III-S subclasses; and class C is the old class IV.

The following conversion table compares the old AM station classes with the new AM station classes:

| Old Domestic Station Class | New Domestic Station Class |
|----------------------------|----------------------------|
| I | A |
| II | B |
| III | B |
| IV | C |
| II-S | D |
| III-S | D |
| II-D | D |
| (Daytime Only) | D |

AM station classes and clear channels listed by frequency

See also: [North American Regional Broadcasting Agreement](#) and [Regional Agreement for the Medium Frequency Broadcasting Service in Region 2](#)

The following chart lists frequencies on the [broadcast company](#) band, and which classes broadcast on these frequencies; [Class A](#) and [Class B](#), 10,000 watt and higher (full-time) stations in North America which broadcast on [clear-channel station](#) frequencies are also shown.

By international agreement, Class A stations must be 10,000 watts and above, with a 50,000 watt maximum for the US and Canada, but no maximum for other governments in the region. Mexico, for example, typically runs 150,000 to 500,000 watts, but some stations are [grandfathered](#) at 10,000 to 20,000 watts at night; by treaty, these sub-50,000 watt Mexican stations may operate with a maximum of 100,000 watts during the daytime.^[3]

Because the AM broadcast band developed before technology suitable for [directional antennas](#), there are numerous exceptions, such as the US use of 800 (kHz) and 900 non-directionally in Alaska, limited to 5 kW at night; and 1050 and 1220, directionally, in the [continental US](#), and without time limits; each of these being assigned to specific cities (and each of these being Mexican Class I-A clear channels). In return for these limits on US stations, Mexico accepted limits on 830 and 1030 in Mexico City, non-directionally, restricted to 5 kW at night (both of these being US Class I-A clear channels).

| <u>Channel Type</u> | <u>Frequency (kHz)</u> | <u>Available Classes</u> | <u>Assignment</u> <u>Old class designation in ()</u> |
|---------------------|------------------------|--------------------------|--|
| — | 530 | — | In the US, reserved for low power AM Travelers' Information Stations CBK Watrous, Saskatchewan : Class A (I-A) CBT Grand Falls-Windsor , Newfoundland and Labrador: Class A (I-B) |
| Clear | 540 | A, B, D | XEWA San Luis Potosí, San Luis Potosí : Class A (I-A) WFLF Pine Hills, Florida : Class B (II-B) CMBV Wajay, Cuba : Class A "Rio" grant: 500 kW all hours; special grant of a Cuban Class A on a regional channel |
| Regional | 550 | (A), B, D | |
| Regional | 560 | B, D | |
| Regional | 570 | (A), B, D | CMEA Santa Clara, Cuba : Class A "Rio" grant: 30 kW all hours; special grant of a Cuban Class A on a regional channel CMAA Pinar del Rio, Cuba : Class A "Rio" grant: 30 kW all hours; special grant of a Cuban Class A on a regional channel |
| Regional | 580 | (A), B, D | KMJ Fresno, California Class B (III-A) 50 kW all hours; directional all hours |

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| Regional | 590 | (A), B, D | CMCA San Antonio Vegas, Cuba: Class A "Rio" grant: 150 kW all hours; special grant of a Cuban Class A on a regional channel |
| Regional | 600 | (A), B, D | CMKA San German, Cuba: Class A "Rio" grant: 150 kW all hours; special grant of a Cuban Class A on a regional channel |
| Regional | 610 | B, D | |
| Regional | 620 | (A), B, D | CMDA Colon, Cuba: Class A "Rio" grant: 30 kW all hours; special grant of a Cuban Class A on a regional channel |
| Regional | 630 | (A), B, D | CMHA Camaguey, Cuba: Class A "Rio" grant: 30 kW all hours; special grant of a Cuban Class A on a regional channel |
| Clear | 640 | A, B, D | KFI Los Angeles, California: Class A (I-A) KYUK Bethel, Alaska : Class A (I-N) CBN St. John's, Newfoundland and Labrador : Class A (I-B) NARBA grant: 10 kW non-directional all hours |
| Clear | 650 | A, B, D | WSM Nashville, Tennessee : Class A (I-A) KENI Anchorage, Alaska : Class A (I-N) |
| Clear | 660 | A, B, D | WFAN New York City: Class A (I-A) KFAR Fairbanks, Alaska : Class A (I-N) KTNN Window Rock, Arizona : Class B (II-B) CMDC Colon, Cuba: Class A "Rio" grant: 30 kW all hours; special grant of a Cuban Class A on a US clear channel |
| Clear | 670 | A, B, D | WSCR Chicago, Illinois: Class A (I-A) KDLG Dillingham, Alaska : Class A (I-N) KBOI Boise, Idaho : Class B (II-A) CMBC Arroyo Arena, Cuba: Class A "Rio" grant: 50 kW all hours; special grant of a Cuban Class A on a US clear channel |
| Clear | 680 | A, B, D | KNBR San Francisco, California : Class A (I-B) ND-U KBRW Barrow, Alaska : Class A (I-N) WRKO Boston, Massachusetts : Class B (II-B) WCBM Baltimore, Maryland : Class B (II-B) WPTF Raleigh, North Carolina : Class B (II-B) |
| Clear | 690 | A, B, D | CKGM Montreal, Quebec : Class A (I-A) CBU Vancouver, British Columbia : Class B (II-B) XEWV Tijuana, Baja California : Class A (I-B) NARBA grant: 50 kW, directional all hours; currently 77 kW days, 50 kW nights, directional all hours WOKV Jacksonville, Florida : Class B (II-B) CMEC Santa Clara, Cuba: Class A "Rio" grant: 50 kW all hours; special grant of a Cuban Class A on a |

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| | | | Canadian clear channel |
| Clear | 700 | A, B, D | WLW Cincinnati, Ohio : Class A (I-A) KBYR Anchorage, Alaska : Class A (I-N) WOR New York City : Class A (I-B) |
| Clear | 710 | A, B, D | KIRO Seattle, Washington : Class A (I-B) KSPN Los Angeles, California : Class B (II-B) WAQI Miami, Florida : Class B (II-B) |
| Clear | 720 | A, B, D | WGN Chicago, Illinois : Class A (I-A) KOTZ Kotzebue, Alaska : Class A (I-N) KDWN Las Vegas, Nevada : Class B (II-A) CKAC Montreal, Quebec : Class A (II-B) ("Rio" grant: promotion to Class A) |
| Clear | 730 | A, B, D | XEX Mexico City : Class A (I-A) CMHC Camaguey, Cuba : Class A "Rio" grant: 30 kW all hours; special grant of a Cuban Class A on a Mexican clear channel CFZM Toronto, Ontario : Class A (I-A) KCBS San Francisco, California : Class B (II-B) Formerly KQW San Jose, California |
| Clear | 740 | A, B, D | WYGM Orlando, Florida : Class B (II-B) KRMG Tulsa, Oklahoma : Class B (II-B) KTRH Houston, Texas : Class B (II-B) CMAC Pinar del Rio, Cuba : Class A "Rio" grant: 30 kW all hours; special grant of a Cuban Class A on a Canadian clear channel WSB Atlanta, Georgia : Class A (I-A) KFOD Anchorage, Alaska : Class A (I-N) |
| Clear | 750 | A, B, D | CBGY Bonavista, Newfoundland and Labrador : Class A (I-B) (New station; Grandfathered at 10 kW) KMMJ Grand Island, Nebraska : Class B (II-B) KXTG Portland, Oregon : Class B (II-B) WJR Detroit, Michigan : Class A (I-A) KGB San Diego, California : Class B (II-B) |
| Clear | 760 | A, B, D | CMKC Cacocun, Cuba : Class A "Rio" grant: 75 kW all hours; special grant of a Cuban Class A on a US clear channel WABC New York City : Class A (I-A) |
| Clear | 770 | A, B, D | KKOB Albuquerque, New Mexico : Class B (II-A) KCHU Valdez, Alaska : Class A (I-N) KTTH Seattle, Washington : Class B (II-B) |
| Clear | 780 | A, B, D | WBBM Chicago, Illinois : Class A (I-A) KNOM Nome, Alaska : Class A (I-N) KKOH Reno, Nevada : Class B (II-A) |
| Regional | 790 | (A), B, D | CMAC Guanabacoba, Cuba : Class A "Rio" grant: |

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| | | | 30 kW all hours; special grant of a Cuban Class A on a regional channel |
| Clear | <u>800</u> | A, B, D | <u>XEROK Ciudad Juárez, Chihuahua</u> : Class A (I-A) <u>CKLW Windsor, Ontario</u> : Class B (II-B) <u>CMEB Santa Clara, Cuba</u> : Class A "Rio" grant: 30 kW all hours; special grant of a Cuban Class A on a Mexican clear channel <u>KGO San Francisco, California</u> : Class A (I-B) <u>WGY Schenectady, New York</u> : Class A (I-B) ND-U, but KGO was the originally assigned dominant station <u>WHB Kansas City, Missouri</u> : Class B (II-B) <u>WKVM San Juan, Puerto Rico</u> : Class B (II-B) |
| Clear | <u>810</u> | A, B, D | <u>WBAP Fort Worth, Texas</u> : Class A (I-A) <u>KCBF Fairbanks, Alaska</u> : Class A (I-N) <u>WCCO Minneapolis, Minnesota</u> : Class A (I-A) <u>KLAA Orange, California</u> : Class B (II-B) |
| Clear | <u>820</u> | A, B, D | <u>XEITE Mexico City, Mexico</u> : Class B (II-B) NARBA grant: 5 kW all hours; present operation 10 kW days, 5 kW nights |
| Clear | <u>830</u> | A, B, D | <u>WHAS Louisville, Kentucky</u> : Class A (I-A) <u>KXNT North Las Vegas, Nevada</u> : Class B (II-B) |
| Clear | <u>840</u> | A, B, D | <u>KOA Denver, Colorado</u> : Class A (I-B) ND-U <u>KICY Nome, Alaska</u> : Class A (I-N) <u>WEEI Boston, Massachusetts</u> : Class B (II-B) <u>WTAR Norfolk, Virginia</u> : Class B (II-B) |
| Clear | <u>850</u> | A, B, D | <u>CJBC Toronto, Ontario</u> : Class A (I-A) <u>KTRB San Francisco, California</u> : Class B (II-B) Presently operating at 7.5 kW nights |
| Clear | <u>860</u> | A, B, D | <u>CMDB Colon, Cuba</u> : Class A "Rio" grant: 30 kW all hours; special grant of a Cuban Class A on a Canadian clear channel |
| Clear | <u>870</u> | A, B, D | <u>WWL New Orleans, Louisiana</u> : Class A (I-A) <u>WCBS New York City</u> : Class A (I-A) |
| Clear | <u>880</u> | A, B, D | <u>KRVN Lexington, Nebraska</u> : Class B (II-A) <u>CMAB Pinar del Rio, Cuba</u> : Class A "Rio" grant: 30 kW all hours; special grant of a Cuban Class A on a US clear channel |
| Clear | <u>890</u> | A, B, D | <u>WLS Chicago, Illinois</u> : Class A (I-A) <u>KBBI Homer, Alaska</u> : Class A (I-N) <u>KDXU St. George, Utah</u> : Class B (II-A) <u>CMHB Camaguey, Cuba</u> : Class A "Rio" grant: 30 kW all hours; special grant of a Cuban Class A on a US clear channel |
| Clear | <u>900</u> | A, B, D | <u>XEW Mexico City</u> : Class A (I-A) |

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| | | | CKBI Prince Albert, Saskatchewan : Class A (II-B) |
| | | | CMKB Cacocun, Cuba: Class A "Rio" grant: 200 kW days, 50 kW nights; special grant of a Cuban Class A on a Mexican clear channel |
| Regional | 910 | (A), B, D | CMAC Guanabacoba, Cuba: Class A "Rio" grant: 75 kW all hours; special grant of a Cuban Class A on a regional channel |
| Regional | 920 | B, D | |
| Regional | 930 | B, D | |
| Clear | 940 | A, B, D | CINW Montreal, Quebec : Class A (I-B) XEQ Mexico City : Class A (I-B) ND-U KFIG Fresno, California : Class B (II-B) KJR Seattle, Washington Class B (II-B) 50 kW all hours; directional all hours |
| Regional | 950 | B, D | WWJ Detroit, Michigan : Class B (II-B) 50 kW all hours; directional all hours |
| Regional | 960 | B, D | |
| Regional | 970 | B, D | |
| Regional | 980 | A (only CKNW), B, D | CKNW New Westminster, British Columbia : Class A |
| Clear | 990 | A, B, D | CBW Winnipeg, Manitoba : Class A (I-A) CBY Corner Brook, Newfoundland and Labrador : Class A (I-B) WTLN Orlando, Florida : Class B (II-B) WMVP Chicago, Illinois : Class A (I-B) KNWN Seattle, Washington : Class A (I-B) |
| Clear | 1000 | A, B, D | XEOY Mexico City, Mexico: Class A (I-B) NARBA grant: 10 kW all hours; present operation 50 kW days, 10 kW nights CBR Calgary, Alberta : Class A (I-A) CFRB Toronto, Ontario: Class A (II-B) (Class II-B promoted to Class A) |
| Clear | 1010 | A, B, D | WINS New York City: Class B (II-B) CMBX Wajay, Cuba: Class A "Rio" grant: 500 kW all hours; special grant of a Cuban Class A on a Canadian clear channel KDKA Pittsburgh, Pennsylvania : Class A (I-A) |
| Clear | 1020 | A, B, D | KVNT Eagle River, Alaska : Class A (I-N) KCKN Roswell, New Mexico : Class B (II-A) KTNQ Los Angeles, California: Class B (II-B) |
| Clear | 1030 | A, B, D | WBZ Boston, Massachusetts : Class A (I-A) KTWO Casper, Wyoming : Class B (II-A) |

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| | | | XEQR Mexico City, Mexico: Class B (II-B) NARBA grant: 5 kW all hours; present operation 50 kW days, 5 kW nights |
| Clear | 1040 | A, B, D | WHO Des Moines, Iowa : Class A (I-A) CHUM Toronto , Ontario: Class B (II-B) XEG Monterrey, Nuevo León : Class A (I-A) |
| Clear | 1050 | A, B, D | WEPN New York City : Class B (II-B) NARBA grant: 50 kW all hours, directional all hours; present operation: same KYW Philadelphia, Pennsylvania : Class A (I-B) |
| Clear | 1060 | A, B, D | XEEP Mexico City : Class A (I-B) NARBA grant: 20 kW all hours; present operation 50 kW days, 20 kW nights |
| Clear | 1070 | A, B, D | KNX Los Angeles, California: Class A (I-B) ND-U CBA Moncton , New Brunswick: Class A (I-B) ND-U (Silent) |
| Clear | 1080 | A, B, D | WTIC Hartford, Connecticut : Class A (I-B) KRLD Dallas, Texas : Class A (I-B) KOAN Anchorage, Alaska : Class A (I-N) KFXX Portland, Oregon : Class B (II-B) |
| Clear | 1090 | A, B, D | KAAY Little Rock, Arkansas : Class A (I-B) WBAL Baltimore, Maryland : Class A (I-B) XEPRS Rosarito Beach , Baja California: Class A (I-B) KPTR Seattle, Washington : Class B (II-B) |
| Clear | 1100 | A, B, D | WTAM Cleveland, Ohio : Class A (I-A) KNZZ Grand Junction, Colorado : Class B (II-A) KFAX San Francisco, California : Class B (II-B) |
| Clear | 1110 | A, B, D | WBT Charlotte, North Carolina : Class A (I-B) KFAB Omaha, Nebraska : Class A (I-B) KWVE Pasadena, California : Class B (II-B) |
| Clear | 1120 | A, B, D | KMOX St. Louis, Missouri : Class A (I-A) KPNW Eugene, Oregon : Class B (II-A) KWKH Shreveport, Louisiana : Class A (I-B) |
| Clear | 1130 | A, B, D | WBBR New York City: Class A (I-B) CKWX Vancouver, British Columbia: Class A (I-B) KTLK Minneapolis, Minnesota : Class B (II-B) |
| Clear | 1140 | A, B, D | WRVA Richmond, Virginia : Class A (I-B) XEMR Apodaca , Nuevo León: Class A (I-B) KHTK Sacramento, California : Class B (II-B) |
| Regional | 1150 | B, D | |
| Clear | 1160 | A, B, D | KSL Salt Lake City , Utah: Class A (I-A) WYLL Chicago, Illinois: Class B (II-B) |
| Clear | 1170 | A, B, D | KTSB Tulsa, Oklahoma : Class A (I-B) |

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| | | | WWVA Wheeling, West Virginia : Class A (I-B) |
| | | | KJNP North Pole, Alaska : Class A (I-N) |
| Clear | 1180 | A, B, D | WHAM Rochester, New York : Class A (I-A) KOFI Kalispell, Montana : Class B (II-A) KEX Portland, Oregon : Class A (I-B) WOWO Fort Wayne, Indiana : Class B (I-B) Former I-B downgraded to Class B by licensee's request; 9.8 kW nights |
| Clear | 1190 | A, B, D | WLIB New York City : Class B (II-B) 10 kW days, 30 kW nights XEWK-AM Guadalajara, Jalisco, Mexico : Class A (I-B) NARBA grant: 10 kW all hours; present operation 50 kW days, 10 kW nights |
| Clear | 1200 | A, B, D | WOAI San Antonio, Texas : Class A (I-A) WMUZ Taylor, Michigan : Class B (II-B) |
| Clear | 1210 | A, B, D | WPHT Philadelphia, Pennsylvania : Class A (I-A) KGYN Guymon, Oklahoma : Class B (II-A) XEB Mexico City : Class A (I-A) |
| Clear | 1220 | A, B, D | WHKW Cleveland, Ohio : Class B (II-B) NARBA grant: 50 kW all hours, directional all hours; present operation: same |
| Regional | 1230 | B | Stations in Alaska , Hawaii , Puerto Rico , and the United States Virgin Islands |
| Local | 1230 | C | Stations in conterminous 48 states |
| Regional | 1240 | B | Stations in Alaska , Hawaii , Puerto Rico , and the United States Virgin Islands |
| Local | 1240 | C | Stations in conterminous 48 states |
| Regional | 1250 | B, D | |
| Regional | 1260 | A (only CFRN), B, D | CFRN Edmonton , Alberta: Class A (III-B) Class III-B promoted to Class A, but operating on a Class III frequency |
| Regional | 1270 | B, D | |
| Regional | 1280 | B, D | |
| Regional | 1290 | B, D | |
| Regional | 1300 | B, D | |
| Regional | 1310 | B, D | |
| Regional | 1320 | B, D | |
| Regional | 1330 | B, D | |
| Regional | 1340 | B | Stations in Alaska , Hawaii , Puerto Rico , and the United States Virgin Islands |
| Local | 1340 | C | Stations in conterminous 48 states |
| Regional | 1350 | B, D | |

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| Regional | 1360 | B, D | |
| Regional | 1370 | B, D | |
| Regional | 1380 | B, D | KRKO Everett, Washington Class B (III-A) 50 kW all hours; directional nights |
| Regional | 1390 | B, D | |
| Regional | 1400 | B | Stations in Alaska , Hawaii , Puerto Rico , and the United States Virgin Islands |
| Local | 1400 | C | Stations in conterminous 48 states |
| Regional | 1410 | B, D | |
| Regional | 1420 | B, D | |
| Regional | 1430 | B, D | |
| Regional | 1440 | B, D | |
| Regional | 1450 | B | Stations in Alaska , Hawaii , Puerto Rico , and the United States Virgin Islands |
| Local | 1450 | C | Stations in conterminous 48 states |
| Regional | 1460 | B, D | |
| Regional | 1470 | B, D | |
| Regional | 1480 | B, D | |
| Regional | 1490 | B | Stations in Alaska , Hawaii , Puerto Rico , and the United States Virgin Islands |
| Local | 1490 | C | Stations in conterminous 48 states |
| Clear | 1500 | A, B, D | WFED Washington, D.C.: Class A (I-B) KSTP Saint Paul, Minnesota : Class A (I-B) WLAC Nashville, Tennessee : Class A (I-B) WMEX Boston, Massachusetts : Class B (II-B) downgraded to 10 kW days, 100 watts nights, non-directional at all times |
| Clear | 1510 | A, B, D | KGA Spokane, Washington : Class B (I-B) Former I-B downgraded to Class B by licensee's request; 15 kW nights WWKB Buffalo, New York : Class A (I-B) KOKC Oklahoma City, Oklahoma : Class A (I-B) |
| Clear | 1520 | A, B, D | KGDD Oregon City, Oregon : Class B (II-B) KKXA Snohomish, Washington Class B (II-B) 50 kW all hours; directional all hours |
| Clear | 1530 | A, B, D | KFBK Sacramento, California : Class A (I-B) WCKY Cincinnati, Ohio : Class A (I-B) |
| Clear | 1540 | A, B, D | KXEL Waterloo, Iowa : Class A (I-B) ZNS-1 Nassau, Bahamas : Class A (I-A) KMPC Los Angeles, California: Class B (II-B) |
| Clear | 1550 | A, B, D | XERUV Xalapa , Veracruz: Class A (I-B) NARBA |

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| | | | grant: 10 kW non-directional |
| | | | CBEF Windsor, Ontario : Class A (I-B) NARBA grant: 10 kW directional all hours |
| | | | KKOV Vancouver, Washington : Class B (II-B) |
| | | | KNZR Bakersfield, California : Class A (I-B) Only US |
| Clear | 1560 | A, B, D | Class A grandfathered at 10 kW nights, increased daytime power to 25 kW |
| | | | WFME New York City: Class A (I-B) |
| Clear | 1570 | A, B, D | XERF Ciudad Acuña , Coahuila: Class A (I-A) |
| | | | NARBA grant: 250 kW, now operating at 100 kW |
| Clear | 1580 | A, B, D | CKDO Oshawa, Ontario : Class A (I-A) operating at 10 kW |
| | | | KBLA Santa Monica, California : Class B (II-B) |
| Regional | 1590 | B, D | |
| Regional | 1600 | B, D | |
| Regional (Expanded) | 1610 | | In the US, used solely by low power |
| | | | AM Travelers' Information Stations . |
| Regional (Expanded) | 1620 | B | |
| Regional (Expanded) | 1630 | B | |
| Regional (Expanded) | 1640 | B | |
| Regional (Expanded) | 1650 | B | |
| Regional (Expanded) | 1660 | B | |
| Regional (Expanded) | 1670 | B | |
| Regional (Expanded) | 1680 | B | |
| Regional (Expanded) | 1690 | B | |
| Regional (Expanded) | 1700 | B | |

FM

[\[4\]](#)

Station class description



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| Class | Effective Radiated Power (ERP, calculated using transmitter power and antenna HAAT) | Antenna Height Above Average Terrain (HAAT) | Reference distance |
|--------------------------------------|--|--|---|
| C | 100 kW (or higher for grandfathered stations) | 300 to 600 m (984 to 1,969 ft) | 91.8 km (57.0 mi) |
| C0 | 100 kW | 300 to 450 m (984 to 1,476 ft) | 83.4 km (51.8 mi) |
| C1 | up to 100 kW | under 300 m (984 ft) | 83.4 km (51.8 mi) |
| C2 | up to 50 kW | up to 150 m (492 ft) | 52.2 km (32.4 mi) |
| C3 | up to 25 kW | up to 100 m (328 ft) | 39.1 km (24.3 mi) |
| <i>C4 (US rulemaking)</i> | up to 12 kW | up to 100 m (328 ft) | 33.3 km (20.7 mi) |
| B | up to 50 kW | up to 150 m (492 ft) | 65.1 km (40.5 mi) |
| B1 | up to 25 kW | up to 100 m (328 ft) | 44.7 km (27.8 mi) |
| A | 100 W to 6 kW (3 kW in Mexico) | up to 100 m (328 ft) | 28.3 km (17.6 mi) (24 km (15 mi) in Mexico) |
| A1 (Canada) ^[1] | 50 W to 250 W | up to 100 m (328 ft) | 18 km (11 mi) |
| AA (Mexico) ^[5] | up to 6 kW (the former limit for A) | up to 100 m (328 ft) | 28 km (17 mi) |
| D | up to 250 W ERP except US non- translators to 10W TPO up to 50 W (Mexico) | unlimited up to 45 m (148 ft) (Mexico) | unspecified 5 km (3 mi) (Mexico) |
| L1 (US, also LP100) | 50 W to 100 W | up to 30 m (98 ft) | 5.6 km (3.5 mi) |
| L2 (US, also LP10) | 1 W to 10 W | up to 30 m (98 ft) | 3.2 km (2.0 mi) |
| LP (Canada) | 10-50 W | | |
| VLP (Canada) | up to 10 W | | |
| <i>unlicensed</i> | signal strength of 250 μV/m (US), 100 μV/m (Canada) | unspecified | measured at 3 m (10 ft) (US), 30 m (98 ft) (Canada) |

Notes:

- Canada protects all radio stations out to a [signal strength](#) of 0.5mV/m (54dBu), whereas only commercial B stations in the US are. Commercial B1 in the US is 0.7mV/m

(57dBu), and all other stations are 1.0mV/m (60dBu). [Noncommercial-band](#) stations (88.1 to 91.9) are not afforded this protection, and are treated as C3 and C2 even when they are B1 or B. C3 and C2 may also be reported internationally as B1 and B, respectively.

- Class C0 is for former C stations, demoted at request of another station which needs the downgrade to accommodate its own facilities.
- In practice, many stations are above the maximum HAAT for a particular class, and correspondingly must downgrade their power to remain below the reference distance. Conversely, they may *not* increase power if they are *below* maximum HAAT.
- All class D (including L1 and L2 [LPFM](#) and translator) stations are secondary in the US, and can be bumped or forced off-air completely, even if they are not just a repeater and are the only station a licensee has.
- The United States is divided into regions that have different restrictions for FM stations. Zone I (much of the [US Northeast](#) and [Midwest](#)) and I-A (most of [California](#), plus [Puerto Rico](#)) is limited to classes B and B1, while Zone II (everything else) has only the C classes. All areas have the same classes for A and D.
- Power and height restrictions were put in place in 1962. A number of previously existing stations were [grandfathered](#) in, such as [KRUZ](#) in [Santa Barbara, California](#), and [WLFP](#) in [Memphis, Tennessee](#).

The following table lists the various classes of FM stations, the reference facilities for each station class, and the protected and city grade contours for each station class.^[6]

| FM station class | Reference (maximum) facilities for station class (ERP / HAAT) | FM protected or primary service contour | Distance to protected or primary service contour | Distance to 70 dBu city-grade or principal community coverage contour |
|------------------|---|---|--|---|
| Class A | 6 kW 100 m (328 ft) | 60 dBu (1.0mV/m) | 28.3 km (17.6 mi) | 16.2 km (10.1 mi) |
| Class B1 | 25 kW 100 m (328 ft) | 57 dBu (0.7mV/m) | 44.7 km (27.8 mi) | 23.2 km (14.4 mi) |
| Class B | 50 kW 150 m (492 ft) | 54 dBu (0.5mV/m) | 65.1 km (40.5 mi) | 32.6 km (20.3 mi) |
| Class C3 | 25 kW 100 m (328 ft) | 60 dBu (1.0mV/m) | 39.1 km (24.3 mi) | 23.2 km (14.4 mi) |
| Class C2 | 50 kW 150 m (492 ft) | 60 dBu (1.0mV/m) | 52.2 km (32.4 mi) | 32.6 km (20.3 mi) |
| Class C1 | 100 kW 299 m (981 ft) | 60 dBu (1.0mV/m) | 72.3 km (44.9 mi) | 50.0 km (31.1 mi) |
| Class C0 | 100 kW 450 m (1,476 ft) | 60 dBu (1.0mV/m) | 83.4 km (51.8 mi) | 59.0 km (36.7 mi) |
| Class C | 100 kW | 60 dBu (1.0mV/m) | 91.8 km (57.0 mi) | 67.7 km (42.1 mi) |

600 m (1,969 ft)

Historically, there were local "Class A" frequencies (like AM radio's class C stations) to which only class A stations would be allocated & the other frequencies could not have a class A. According to the 1982 FCC rules & regulations, those frequencies were: 92.1, 92.7, 93.5, 94.3, 95.3, 95.9, 96.7, 97.7, 98.3, 99.3, 100.1, 100.9, 101.7, 102.3, 103.1, 103.9, 104.9, 105.5, 106.3 & 107.1. Stations on those twenty frequencies were limited to having equivalent signals no greater than 3KW at 300 feet (91 meters) above average terrain.

FM zones



FM broadcast zones in the US

The US is divided into three zones for FM broadcasting: I, I-A and II. The zone where a station is located may limit the choices of broadcast class available to a given FM station.

Zone I in the US includes all of [Connecticut](#), the [District of Columbia](#), [Delaware](#), [Illinois](#), [Indiana](#), [Massachusetts](#), [Maryland](#), [New Jersey](#), [Ohio](#), [Pennsylvania](#), [Rhode Island](#), and [West Virginia](#). It also includes the areas south of [latitude 43.5°N](#) in [Michigan](#), [New Hampshire](#), New York, and [Vermont](#); as well as coastal [Maine](#), southeastern [Wisconsin](#), and northern and eastern [Virginia](#).

Zone I-A includes [California](#) south of 40°N, as well as [Puerto Rico](#) and the [US Virgin Islands](#).


Zone II includes the remainder of the [continental US](#), plus [Alaska](#) and [Hawaii](#).

In Zones I and I-A, there are no Class C, C0, or C1 stations. However, there are a few Class B stations with [grandfathered](#) power limits in excess of 50 kW, such as [WETA](#) (licensed for Washington DC in zone I, at a power of 75 kW ERP), [WNCI](#) ([Columbus, Ohio](#) in zone I, at 175 kW ERP), [KPFK](#) (Los Angeles in zone I-A, at 110 kW ERP), and the most extreme example being [WBCT](#) ([Grand Rapids, Michigan](#), in zone I, at 320 kW ERP).

TV



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This list is [incomplete](#); you can help by  [adding missing items](#). (*August 2008*)

Full-power stations in the US

- VHF low (2-6): 100 kW video analog at 1,000 feet (305 meters) in Zone I and 2,000 feet (610 meters) in Zone II and Zone III above average terrain; 10 kW in Zone I and 45 kW in Zone II and Zone III digital at 1,000 feet (305 meters) above average terrain
- VHF high (7-13): 316 kW video analog at 1,000 feet (305 meters) in Zone I and 2,000 feet (610 meters) in Zone II and Zone III above average terrain; 30 kW in Zone I and 160 kW in Zone II and Zone III digital at 1,000 feet (305 meters) above average terrain
- UHF (14-36): 5 MW (5,000 kW) video analog at 2,000 feet (610 meters) above average terrain; 1 MW (1,000 kW) digital at 2,000 feet (610 meters) above average terrain

Notes:

All full-power analog television station transmissions in the US were terminated at midnight [Eastern Daylight Time](#) on June 12, 2009.^{[7][8]} Many broadcasters replaced their analog signal with their digital [ATSC](#) signal on the same transmission channel at that time.

- All US digital stations received a -DT suffix during the analog-to-digital transition. At analog shutdown, the FCC assigned to each digital station the call sign its associated analog station had used. (with a -TV suffix if the analog station had this suffix, without the -TV suffix if the analog station didn't have it). Stations could optionally choose to keep the -DT suffix.^[9] Most stations did not keep the -DT suffix.^[10]
- For US analog stations, the -TV suffix was required if there was a radio station with the same three- or four-letter callsign. Stations not required to use the -TV suffix may optionally request it if desired.
- Analog audio power was limited to 22% of video.^[11]

Full-power stations in Canada

- Class A: UHF, 10 kW video/100 m (328 ft) [EHAAT](#)
- Class B: UHF, 100 kW video/150 m (492 ft) [EHAAT](#)
- Class C: UHF, 1 MW (1,000 kW) video/300 m (984 ft) [EHAAT](#) (?)

- Class D: UHF, more than 1 MW (1,000 kW)/300 m (984 ft) [EHAAT](#)
- Class R: VHF, 100 kW low-band (channels 2–6), 325 kW high-band. (channels 7-13)
- Class S: VHF, more than 100 kW low-band/325 kW high-band.

Notes:

- Official definitions of these classes are difficult to locate. The values above are inferred from the [Industry Canada database](#). There is some ambiguity about the difference between Classes C and D.
- Power-level limitations are not firmly enforced in Canada, and [Industry Canada](#) has been known to license stations for power levels much higher than the generally accepted limits. For example, [CFRN-TV](#) in [Edmonton, Alberta](#) operated on Channel 3 at over 600 kW but was not subject to international co-ordination due to its location 500 km (311 mi) north of the border.
- In Canada, the callsigns of all private TV stations have the -TV suffix. Most [CBC Television](#) and [Ici Radio-Canada Télé](#) TV callsigns end in the letter T and have no suffix. A few Radio-Canada stations, purchased by the CBC from private owners, retain the old -TV callsigns.
- Canadian digital stations all receive the -DT suffix. (this includes CBC and Radio-Canada stations) The [Industry Canada database](#) shows -PT suffixes for the channel allotments for permanent post-transition digital operation but when licences are issued for these permanent digital stations, -DT callsigns are used.

Low-power TV (US)



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LPTV (secondary) (suffix: -LP, or a sequential-numbered callsign in format W##XX with no suffix for analog or with -D suffix for digital, or -LD for low-power digital stations):

- VHF: 3 kW analog video; 3 kW digital
- UHF: 150 kW analog video; 15 kW digital
- Experimental
- Unlicensed: not allowed except for [medical telemetry](#), and certain [wireless microphones](#)

The LPTV (low-power television) service was created in 1982 by the FCC to allocate channels for smaller, local stations, and community channels, such as [public access](#) stations. LPTV stations that meet additional requirements such as children's "[E/I](#)" core programming and [Emergency Alert System](#) broadcasting capabilities can qualify for a [Class A \(-CA\)](#) license.^[12]

[Broadcast translators](#), [boosters](#), and other [LPTV stations](#) are considered secondary to full-power stations, unless they have upgraded to class A. Class A is still considered LPTV with respect to stations in Canada and Mexico.

Class A television (US)

Main article: [Class A television service](#)



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Class-A stations (US) (suffix: -CA or -CD for digital class A):

- VHF: 3 kW analog video; 3 kW digital
- UHF: 150 kW analog video; 15 kW digital

The class-A television class is a variant of LPTV created in 2000 by the FCC to allocate and protect some low-power affiliates. Class-A stations are still low-power, but are protected from [RF interference](#) and from having to change channel should a full-service station request that channel.^[13]

Additionally, class-A stations, LPTV stations, and translators are the only stations currently authorized to broadcast both analog and digital signals, unlike full-power stations which must broadcast a digital signal only.

Low-power TV (Canada)

In Canada, there is no formal transmission power below which a television transmitter is considered broadcasting at low power. Industry Canada considers that a low power digital television undertaking "shall not normally extend a distance of 20 km in any direction from the antenna site," based on the determined noise-limited bounding contour.^[14]

Mexico

All digital television stations in Mexico have **-TDT** callsign suffixes. Analog stations, which existed until December 31, 2016, had **-TV** callsign suffixes.

The equivalent of low power or translator service in Mexico is the *equipo complementario de zona de sombra*, which is intended only to fill in gaps between a station's expected and actual service area caused by terrain; a station of this type shares the callsign of another station. In analog, these services often were broadcast on the same or adjacent channels to their parent station, except in certain areas with tight packing of television stations (such as central Mexico). In digital, these services usually operate on the same RF channel as their parent station, except for those with conflicting full-power applications ([XHBS-TDT](#) Cd. Obregón, Son., channel 30 instead of 25), in certain other cases where it is technically not feasible ([XHAW-TDT](#) Guadalupe, NL, channel 26 instead of 25) or to make way for eventual repacking on upper UHF ([XHPNW-TDT](#) has four shadows on 33, its post-repacking channel, instead of 39).

Equipos complementarios can relay their parent station, or a station that carries 75% or more of the same programming as its parent station.^[15]

Stations of either type may have unusually low or high effective radiated powers. [XHSMI-TDT](#) in Oaxaca is licensed for two watts in digital. The highest-powered shadows are [XEQ-TDT](#) Toluca and [XHBS-TDT](#) Ciudad Obregón, both at 200 kW.

FCC service table

The United States [Federal Communications Commission](#) lists the following services on their website for television broadcasting:

| Broadcast class | Service | Suffixes used or call sign examples |
|--|---------|---|
| Television allotment (analog) | TA | An allocation of a frequency to a city of license for which no corresponding call sign or license has been assigned. FCC placeholder for possible future construction permits or frequencies allocated to non-US broadcast use. No call sign, identifier is a date (yymmdd) followed by a sequential two-letter value in the US FCC database. |
| Full-service TV (analog) | TV | -TV or none (such as " KRON-TV " and " KTLA ") Since the shutdown of all full power analog stations in June 2009, used only for historical records. |
| Class A (analog) | CA | -CA , or a translator-style call sign (such as " KTFB-CA ") |
| Low-power station (analog) or translator | LP | -LP , or a translator-style call sign (such as " KDMD-LP " and " K13IO " with the 2 digits denoting the channel of operation) |
| TV boosters | TB | Rare. These use the parent station's call sign plus a sequential number, such as WSTE1 , WSTE2 , WSTE3 . Nameplates for on-channel repeaters bear the parent station's call sign, followed by "booster". ^[16] See distributed transmission . If the station is digital, and has on-channel boosters, they would typically be named WSTE-DT1 , WSTE-DT2 , WSTE-DT3 and so on. |
| TV auxiliary (analog backup) service | TS | no specific suffix (uses same call sign as main transmitter) |
| NTSC (analog) petition for a channel change | NN | no specific suffix; uses same call sign as the station which made a request for a number/channel change (for NTSC/analog stations, and low-power repeaters, such as those registered as TX). -DT , -TV or none (such as KGLA-DT , WSKY-TV or KOHD). Some stations formerly used -HD , but this has become obsolete (though it may sometimes still be seen identifying the station's main subchannel in a PSIP listing). |
| Digital Television (full power) | DT | The -DT suffix, optional for digital-only stations, was used primarily to distinguish a DTV transmission from an analog signal of the same broadcast (or is seen identifying the main subchannel of a station on a PSIP display); likewise, -TV is optional except if the eponymous radio stations exist. A |

| | | |
|---|--|---|
| | | similar suffix -DTV , is used on all television stations in Japan . |
| Digital Class-A | CD | <p>-CD (such as "WDNI-CD" and "WYYW-CD") Some stations briefly used -DC as well (this has since become obsolete). A scant few still use translator-style call signs with the -D suffix (such as "K36ID-D").</p> <p>-LD or translator-style calls with -D suffix (such as "WBND-LD" and "W25AA-D"), occasionally no suffix (uses same call sign as main transmitter). Some stations briefly used -DL as well (this has since become obsolete). Some full-powered stations (such as WOIO, WXMI and WLS-TV) have been granted approval for fill-in translators within their broadcast market to better cover outlying towns or heavily urbanized areas, particularly by stations with a VHF digital signal. These are technically -LD stations, but have the same call-sign as their parent station (such as WLS-TV or WOIO, and <i>not</i> as WLS-LD or WOIO-LD, though they could be considered as such for ease of differentiating the low-power repeater from its parent), similar to a Distributed Transmission System (but on different frequencies).</p> |
| Digital Low-power | LD | <p>no specific suffix; uses same call sign as station making a request for permission from the FCC to use a channel, power level or transmitter location not permanently allocated for one particular station. Temporary assignments retain, unmodified, the call sign of the corresponding permanent allocation; this includes translator-style calls (a format, such as W55ZZ-D, based on RF channel number plus a sequential identifier) even on those temporarily moving to another frequency.</p> |
| Digital special temporary authority (STA) | DS | |
| Digital Television distributed transmission system (multiple transmitter sites) | DD | <p>no specific suffix (uses same call sign as main transmitter); this is usually requested for a single-frequency network and to tailor coverage area to the needs of the viewers in the station's service area (such as covering towns and farmland, and not mountainous terrain or the ocean)</p> |
| Digital auxiliary (backup) service | DX (not to be confused with DXing) | no specific suffix (uses same call sign as main transmitter) |
| Digital rulemaking petition | DR | no specific suffix; uses same call sign as station making this request to add or modify a digital channel allocation |
| Land mobile use of a TV channel (TV RF channels 14-20 only) | LM | As "LM" is used in the FCC database to indicate reallocation of an entire channel, but not to identify individual users transmitting in that spectrum, a 6 MHz LM allocation does |

not itself carry a TV-style call sign. The spectrum of TV channels 14-20 is called "T-band" in LMR use.^[17] Repeaters that operate in such an allocation use a 3 MHz offset instead of 5 MHz as normally used in the 450-470 MHz range.

ATSC 3.0 Futurecast

Experimental Broadcasts EX

Used for officially licensed experimental [4K/2160p Ultra HDTV](#) broadcast stations, such as [WRAL-TV](#)'s UHDTV simulcast, WRAL-EX.

See also

- [Call signs in North America](#) - How call signs and classes are used in North America
- [ITU prefix](#) - How call signs and classes are used worldwide
- [Low-power broadcasting](#)
- [Class A television service](#)

References

1.

- ["AM Station Classes, and Clear, Regional, and Local Channels"](#). *fcc.gov. Federal Communications Commission. 11 December 2015. Retrieved July 5, 2019.*
- • ["Industry Canada Broadcasting Database"](#). Archived from [the original](#) on 2013-12-07. Retrieved 2011-01-29.
- • ["Clear Channel Stations"](#). *www.olderadio.com.*
- • ["FM Broadcast Station Classes and Service Contours"](#). *fcc.gov. 11 December 2015.*
- • [IFT: Disposición Técnica IFT-002-2016 "Especificaciones y requerimientos para la instalación y operación de las estaciones de radiodifusión sonora en frecuencia modulada en la banda de 88 a 108 MHz"](#) is the current document that defines FM station classes and operating parameters in Mexico.
- • ["FM Broadcast Station Classes and Service Contours"](#). *FCC. Federal Communications Commission. 11 December 2015. Archived from the original on 1 March 2016. Retrieved 28 October 2018.* See [Talk page](#).
- • [A New Era in Television Broadcasting Archived 2007-11-23 at the Wayback Machine](#) - DTVTransition.org
- • ["Congress delays DTV switch"](#). *Christian Science Monitor. 4 February 2009.*
- • http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-09-1253A1.txt - FCC DA-09-1253
- • http://licensing.fcc.gov/prod/cdbs/pubacc/prod/sta_sear.htm Searching for the -DT suffix returns only 91 stations; -TV returns 903, searching for TV stations with no suffix at all returns 1,827. Searches conducted 29 Jan 2011.
- • http://edocket.access.gpo.gov/cfr_2009/octqtr/47cfr73.1560.htm - FCC regulation 73.1560(c)(2)
- • ["Low Power Television \(LPTV\) Service"](#). *fcc.gov. 17 May 2011.*
- • http://www.fcc.gov/Bureaus/Mass_Media/Orders/2001/fcc01123.txt^[bare URL plain text file]

- • ["Part 10: Application and Procedures and Rules for Digital Television \(DTV\) Undertakings" \(PDF\)](#). *ic.gc.ca*.
- • [IFT: Disposición Técnica IFT-013-2016 "Especificaciones y requerimientos mínimos para la instalación y operación de estaciones de televisión, equipos auxiliares y equipos complementarios"](#), which became effective on January 1, 2017, provides the guidelines for the operation of digital television stations and their shadows.
- • ["US CFR 47 Part 74G - 74.733 UHF translator signal boosters"](#). *gpoaccess.gov*. Archived from [the original](#) on 2012-03-05. Retrieved 2008-07-13.
-