

Amateur Radio Technician Class Course

Version 2.0

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The questions in this course are the exact questions in the question pool. There will be no surprises. If you learn the answer to these questions, you will pass the exam.

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SUBELEMENT T1

FCC Rules, descriptions and definitions for the Amateur Radio Service, operator and station license responsibilities

6 Exam Questions - 6 Groups

T1A –

Amateur Radio Service: purpose and permissible use of the Amateur Radio Service; operator/primary station license grant; where FCC rules are codified; basis and purpose of FCC rules; meanings of basic terms used in FCC rules; interference; spectrum management

The Amateur Radio Service is intended for persons who are interested in radio technique solely with a personal aim and without pecuniary reasons.

Ham Radio is a hobby for people from all walks of life. Factory Workers, Mail Carriers, Janitors, and High School students are just a small sample of those that enjoy the magic of Ham Radio.

Anyone may become a ham regardless of age. Children as young as 8 years old have passed the exam. Seniors as old as 80 or more have become new hams. Ham Radio is indeed a hobby of the people.

The agency that regulates and enforces the rules for the Amateur Radio Service in the United States is the Federal Communications Commission, or the **FCC.**

Part 97 of the FCC regulations contains the rules governing the Amateur Radio Service.

Advancing skills in the technical and communication phases of the radio art is a purpose of the Amateur Radio Service as stated in the FCC rules and regulations.

Enhancing international goodwill is another purpose of the Amateur Radio Service rules and regulations as defined by the FCC.

A station in the Amateur Radio Service consisting of the apparatus necessary for carrying on radio communications is the FCC Part 97 definition of an amateur station.

Allowing a person to conduct radio experiments and to communicate with other licensed hams around the world is a permissible use of the Amateur Radio Service.

T1A01

Which of the following is a purpose of the Amateur Radio Service as stated in the FCC rules and regulations?

- A. Providing personal radio communications for as many citizens as possible
- B. Providing communications for international non-profit organizations
- C. Advancing skills in the technical and communication phases of the radio art
- D. All of these choices are correct

T1A01

Which of the following is a purpose of the Amateur Radio Service as stated in the FCC rules and regulations?

C. Advancing skills in the technical and communication phases of the radio art

T1A02

Which agency regulates and enforces the rules for the Amateur Radio Service in the United States?

- A. FEMA
- B. The ITU
- C. The FCC
- D. Homeland Security

T1A02

Which agency regulates and enforces the rules for the Amateur Radio Service in the United States?

C. The FCC

T1A03

Which part of the FCC regulations contains the rules governing the Amateur Radio Service?

- A. Part 73
- B. Part 95
- C. Part 90
- D. Part 97

T1A03

Which part of the FCC regulations contains the rules governing the Amateur Radio Service?

D. Part 97

T1A05

Which of the following is a purpose of the Amateur Radio Service rules and regulations as defined by the FCC?

- A. Enhancing international goodwill
- B. Providing inexpensive communication for local emergency organizations
- C. Training of operators in military radio operating procedures
- D. All of these choices are correct

T1A05

Which of the following is a purpose of the Amateur Radio Service rules and regulations as defined by the FCC?

A. Enhancing international goodwill

T1A10

What is the FCC Part 97 definition of an amateur station?

- A. A station in the Amateur Radio Service consisting of the apparatus necessary for carrying on radio communications
- B. A building where Amateur Radio receivers, transmitters, and RF power amplifiers are installed
- C. Any radio station operated by a non-professional
- D. Any radio station for hobby use

T1A10

What is the FCC Part 97 definition of an amateur station?

A. A station in the Amateur Radio Service consisting of the apparatus necessary for carrying on radio communications

T1A12

Which of the following is a permissible use of the Amateur Radio Service?

- A. Broadcasting music and videos to friends
- B. Providing a way for amateur radio operators to earn additional income by using their stations to pass messages
- C. Providing low-cost communications for start-up businesses
- D. Allowing a person to conduct radio experiments and to communicate with other licensed hams around the world

T1A12

Which of the following is a permissible use of the Amateur Radio Service?

D. Allowing a person to conduct radio experiments and to communicate with other licensed hams around the world

Amateur Radio Stations are not allowed to intentionally interfere with one another. No one in the Amateur Radio Service “owns” a frequency.

The FCC definition of harmful interference is **that which seriously degrades, obstructs, or repeatedly interrupts a radio communication service operating in accordance with the Radio Regulations.**

At no time is willful interference to other amateur radio stations permitted.

The **Radionavigation Services** are protected from interference by amateur signals under all circumstance.

If you are operating on the 23 cm band and learn that you are interfering with a radiolocation station outside the United States, you must **stop operating or take steps to eliminate the harmful interference.**

T1A04

Which of the following meets the FCC definition of harmful interference?

- A. Radio transmissions that annoy users of a repeater
- B. Unwanted radio transmissions that cause costly harm to radio station apparatus
- C. That which seriously degrades, obstructs, or repeatedly interrupts a radio communication service operating in accordance with the Radio Regulations
- D. Static from lightning storms

T1A04

Which of the following meets the FCC definition of harmful interference?

C. That which seriously degrades, obstructs, or repeatedly interrupts a radio communication service operating in accordance with the Radio Regulations

T1A11

When is willful interference to other amateur radio stations permitted?

- A. Only if the station being interfered with is expressing extreme religious or political views
- B. At no time
- C. Only during a contest
- D. At any time, amateurs are not protected from willful interference

T1A11

When is willful interference to other amateur radio stations permitted?

B. At no time

T1A14

What must you do if you are operating on the 23 cm band and learn that you are interfering with a radiolocation station outside the United States?

- A. Stop operating or take steps to eliminate the harmful interference
- B. Nothing, because this band is allocated exclusively to the amateur service
- C. Establish contact with the radiolocation station and ask them to change frequency
- D. Change to CW mode, because this would not likely cause interference

T1A14

What must you do if you are operating on the 23 cm band and learn that you are interfering with a radiolocation station outside the United States?

A. Stop operating or take steps to eliminate the harmful interference

T1A06

Which of the following services are protected from interference by amateur signals under all circumstances?

- A. Citizens Radio Service
- B. Broadcast Service
- C. Land Mobile Radio Service
- D. Radionavigation Service

T1A06

Which of the following services are protected from interference by amateur signals under all circumstances?

D. Radionavigation Service

Frequency Coordinators

recommend transmit/receive channels and other parameters for auxiliary and repeater stations.

Frequency Coordinators are groups of volunteer hams that assist in assigning repeater frequencies to hams wishing to set up a repeater station.

Amateur operators in a local or regional area whose stations are eligible to be auxiliary or repeater stations are the ones that select the frequency coordinators.

The Ohio Area Repeater Council
has been selected by hams in
Ohio to coordinate repeater and
auxiliary frequencies.

T1A08

Which of the following entities recommends transmit/receive channels and other parameters for auxiliary and repeater stations?

- A. Frequency Spectrum Manager
- B. Frequency Coordinator
- C. FCC Regional Field Office
- D. International Telecommunications Union

T1A08

Which of the following entities recommends transmit/receive channels and other parameters for auxiliary and repeater stations?

B. Frequency Coordinator

T1A09

Who selects a Frequency Coordinator?

- A. The FCC Office of Spectrum Management and Coordination Policy
- B. The local chapter of the Office of National Council of Independent Frequency Coordinators
- C. Amateur operators in a local or regional area whose stations are eligible to be auxiliary or repeater stations
- D. FCC Regional Field Office

T1A09

Who selects a Frequency Coordinator?

C. Amateur operators in a local or regional area whose stations are eligible to be auxiliary or repeater stations

Many of the U.S. astronauts are hams and use of ham radio aboard the International Space Station is common practice.

Hams aboard the International Space Station routinely conduct question and answer sessions with Schools across the United States and sometimes the world via ham radio.

It is fun for the students and fun for the astronauts.

The Amateur Radio Service worldwide has established a fleet of communications satellite that are used by many hams. These satellites must be monitored and controlled.

A one-way transmission of measurements at a distance from the measuring instrument is the FCC Part 97 definition of telemetry.

A one-way transmission to initiate, modify or terminate functions of a device at a distance is the FCC Part 97 definition of telecommand.

T1A07

What is the FCC Part 97 definition of telemetry?

- A. An information bulletin issued by the FCC
- B. A one-way transmission to initiate, modify or terminate functions of a device at a distance
- C. A one-way transmission of measurements at a distance from the measuring instrument
- D. An information bulletin from a VEC

T1A07

What is the FCC Part 97 definition of telemetry?

C. A one-way transmission of measurements at a distance from the measuring instrument

T1A13

What is the FCC Part 97 definition of telecommand?

- A. An instruction bulletin issued by the FCC
- B. A one-way radio transmission of measurements at a distance from the measuring instrument
- C. A one-way transmission to initiate, modify or terminate functions of a device at a distance
- D. An instruction from a VEC

T1A13

What is the FCC Part 97 definition of telecommand?

C. A one-way transmission to initiate, modify or terminate functions of a device at a distance

T1B –

**Authorized frequencies;
frequency allocations; ITU
regions; emission modes;
restricted sub-bands; spectrum
sharing; transmissions near
band edges**

The ITU or the International Telecommunications Union is **a United Nations agency for information and communication technology issues.**

There are 3 ITU Regions and North American Amateur Stations are located in ITU Region 2. **Some U. S. Territories are located in ITU regions other than region 2** is why the frequency assignments for some U.S. Territories are different from those in the 50 U.S. States.

Frequency assignments for U.S. stations operating maritime mobile are not the same everywhere in the world because **Amateur frequency assignments can vary among the three ITU regions.**

Frequency bands in the radio spectrum have primary and secondary users. Hams are the primary user on many bands, however there are a few bands that amateurs share on a secondary basis. On these bands, someone else is the primary user.

It may be a government agency or a business. A result of the fact that the amateur service is secondary in some portions of the 70 cm band is that **U.S. amateurs may find non-amateur stations in the bands, and must avoid interfering with them.**

T1B01

What is the ITU?

A. An agency of the United States Department of Telecommunications Management

B. A United Nations agency for information and communication technology issues

C. An independent frequency coordination agency

D. A department of the FCC

T1B01

What is the ITU?

B. A United Nations agency for information and communication technology issues

T1B02

Why are the frequency assignments for some U.S. Territories different from those in the 50 U.S. States?

- A. Some U. S. Territories are located in ITU regions other than region 2
- B. Territorial governments are allowed to select their own frequency allocations
- C. Territorial frequency allocations must also include those of adjacent countries
- D. Any territory that was in existence before the ratification of the Communications Act of 1934 is exempt from FCC frequency regulations

T1B02

Why are the frequency assignments for some U.S. Territories different from those in the 50 U.S. States?

A. Some U. S. Territories are located in ITU regions other than region 2

T1B08

Which of the following is a result of the fact that the amateur service is secondary in some portions of the 70 cm band?

- A. U.S. amateurs may find non-amateur stations in the bands, and must avoid interfering with them
- B. U.S. amateurs must give foreign amateur stations priority in those portions
- C. International communications are not permitted on 70 cm
- D. Digital transmissions are not permitted on 70 cm

T1B08

Which of the following is a result of the fact that the amateur service is secondary in some portions of the 70 cm band?

A. U.S. amateurs may find non-amateur stations in the bands, and must avoid interfering with them

T1B12

Why are frequency assignments for U.S. stations operating maritime mobile not the same everywhere in the world?

- A. Amateur maritime mobile stations in international waters must conform to the frequency assignments of the country nearest to their vessel
- B. Amateur frequency assignments can vary among the three ITU regions
- C. Frequency assignments are determined by the captain of the vessel
- D. Amateur frequency assignments are different in each of the 90 ITU zones

T1B12

Why are frequency assignments for U.S. stations operating maritime mobile not the same everywhere in the world?

B. Amateur frequency assignments can vary among the three ITU regions

Amateur Radio Operators are allocated many bands across the radio spectrum. A band is set frequency spread. For instance, the 6 meter ham band ranges in frequency from 50.000 MHz to 54.000 MHz.

This is a spread of 4 MHz and will allow hundreds of stations to operate on the 6 meter band simultaneously.

Bands below 30 MHz are considered the shortwave bands. Frequencies above 30 MHz are the VHF, UHF, and Microwave bands. As a Technician Class ham, you will have all amateur privileges above 30 MHz.

There are also a few bands below
30 MHz that Technician Class
hams may use.

These are a few frequencies that one must remember to pass the Technician Class test. Sorry, you will just have to memorize these frequencies and their associated band.

- **52.525 MHz** is a frequency within the 6 meter band.
- 146.52 MHz is a frequency within the **2 meter band**.
- **443.350 MHz** is a 70 CM frequency authorized to a Technician Class license holder operating in Region 2.
- **1296 MHz** is a 23 CM frequency authorized to a Technician Class operator license.
- Transmitting on 223.50 MHz, you are using the **1.25 meter band**.

Remember these frequencies. At least one is sure to be on the test.

T1B03

Which frequency is within the 6 meter band?

- A. 49.00 MHz
- B. 52.525 MHz
- C. 28.50 MHz
- D. 222.15 MHz

T1B03

Which frequency is within the 6 meter band?

B. 52.525 MHz

T1B04

Which amateur band are you using when your station is transmitting on 146.52 MHz?

- A. 2 meter band
- B. 20 meter band
- C. 14 meter band
- D. 6 meter band

T1B04

Which amateur band are you using when your station is transmitting on 146.52 MHz?

A. 2 meter band

T1B05

Which 70 cm frequency is authorized to a Technician Class license holder operating in ITU Region 2?

- A. 53.350 MHz
- B. 146.520 MHz
- C. 443.350 MHz
- D. 222.520 MHz

T1B05

Which 70 cm frequency is authorized to a Technician Class license holder operating in ITU Region 2?

C. 443.350 MHz

T1B06

Which 23 cm frequency is authorized to a Technician Class License?

- A. 2315 MHz
- B. 1296 MHz
- C. 3390 MHz
- D. 146.52 MHz

T1B06

Which 23 cm frequency is authorized to a Technician Class License?

B. 1296 MHz

T1B07

What amateur band are you using if you are transmitting on 223.50 MHz?

- A. 15 meter band
- B. 10 meter band
- C. 2 meter band
- D. 1.25 meter band

T1B07

What amateur band are you using if you are transmitting on 223.50 MHz?

D. 1.25 meter band

The 6 meter, 2 meter, and 1.25 meter bands available to Technician Class operators have mode-restricted sub bands.

In the mode-restricted sub bands at 50.0 to 50.1 MHz and 144.0 to 144.1 MHz **only CW emission modes** are permitted. CW in the ham lingo for Morse Code. You will learn more about the CW mode later in this course.

Data emission may be used
between 219 and 220 MHz.

Since amateurs are allowed to operate only inside their assigned frequency bands, one must be careful not to transmit out of band.

All radio transmission modes contain a certain bandwidth. That is how wide the signal is.

CW or Morse Code has a very narrow bandwidth. The popular FM voice mode commonly used by Technician Class operators has a much wider bandwidth.

You should not set your transmit frequency to be exactly at the edge of an amateur band or sub-band

- to allow for calibration error in the transmitter frequency display
- so that modulation sidebands (bandwidth) do not exceed beyond the band edge
- to allow for transmitter frequency drift.
- All of these choices are correct**

T1B09

Why should you not set your transmit frequency to be exactly at the edge of an amateur band or sub-band?

- A. To allow for calibration error in the transmitter frequency display
- B. So that modulation sidebands do not extend beyond the band edge
- C. To allow for transmitter frequency drift
- D. All of these choices are correct

T1B09

Why should you not set your transmit frequency to be exactly at the edge of an amateur band or sub-band?

D. All of these choices are correct

T1B10

Which of the bands above 30 MHz that are available to Technician Class operators have mode-restricted sub-bands?

- A. The 6 meter, 2 meter, and 70 cm bands
- B. The 2 meter and 13 cm bands
- C. The 6 meter, 2 meter, and 1.25 meter bands
- D. The 2 meter and 70 cm bands

T1B10

Which of the bands above 30 MHz that are available to Technician Class operators have mode-restricted sub-bands?

C. The 6 meter, 2 meter, and 1.25 meter bands

T1B11

What emission modes are permitted in the mode-restricted sub-bands at 50.0 to 50.1 MHz and 144.0 to 144.1 MHz?

- A. CW only
- B. CW and RTTY
- C. SSB only
- D. CW and SSB

T1B11

What emission modes are permitted in the mode-restricted sub-bands at 50.0 to 50.1 MHz and 144.0 to 144.1 MHz?

A. CW only

T1B13

Which emission may be used between 219 and 220 MHz?

- A. Spread spectrum
- B. Data
- C. SSB voice
- D. Fast-scan television

T1B13

Which emission may be used between 219 and 220 MHz?

B. Data

T1C - Operator licensing: operator classes; sequential, special event, and vanity call sign systems; international communications; reciprocal operation; station license and licensee; places where the amateur service is regulated by the FCC; name and address on FCC license database; license term; renewal; grace period

Ham radio call signs in the United States begin with A, K, N, or W. They also contain one number from 0 to 9. The number is often an indication of where in the U.S. an amateur station is located.

However, people move and hams may take their call signs with them wherever they go in the United States. In Ohio, a newly licensed ham will have the number 8 in his call, such as K8EEN, W8PEN, and WA8YRS. **W3ABC** is a valid US amateur radio station call sign.

A special event station is an amateur radio station celebrating a special event. This event could be a local community event, a family event, etc.

Temporary call signs may be acquired for such events. A call sign that has a single letter in the prefix and suffix of a call is used for a **special event**. W8V, K8C, N8M are examples of special event call signs.

For a Fee, **any licensed amateur** may select a vanity call sign. Availability depends on the Class of license the applicant has. **K1XXX** is a vanity call sign which a technician class amateur operator might select if available.

Only the person named as trustee
on the club station license grant
may select a vanity call sign for a
club station.

T1C01

Which type of call sign has a single letter in both its prefix and suffix?

- A. Vanity**
- B. Sequential**
- C. Special event**
- D. In-memoriam**

T1C01

Which type of call sign has a single letter in both its prefix and suffix?

C. Special event

T1C02

Which of the following is a valid US amateur radio station call sign?

A. KMA3505

B. W3ABC

C. KDKA

D. 11Q1176

T1C02

Which of the following is a valid US amateur radio station call sign?

B. W3ABC

T1C05

Which of the following is a vanity call sign which a technician class amateur operator might select if available?

A. K1XXX

B. KA1X

C. W1XX

D. All of these choices are correct

T1C05

Which of the following is a vanity call sign which a technician class amateur operator might select if available?

A. K1XXX

T1C12

Who may select a desired call sign under the vanity call sign rules?

- A. Only licensed amateurs with general or extra class licenses**
- B. Only licensed amateurs with an extra class license**
- C. Only an amateur licensee who has been licensed continuously for more than 10 years**
- D. Any licensed amateur**

T1C12

Who may select a desired call sign under the vanity call sign rules?

D. Any licensed amateur

T1C14

Who may select a vanity call sign for a club station?

- A. Any Extra Class member of the club**
- B. Any member of the club**
- C. Any officer of the club**
- D. Only the person named as trustee on the club station license grant**

T1C14

Who may select a vanity call sign for a club station?

D. Only the person named as trustee on the club station license grant

In addition to places where the FCC regulates communications, an FCC licensed amateur station can transmit from **any vessel or craft that is documented or registered in the United States.**

As a licensed amateur radio operator, you are also allowed to operate in a foreign country **when the foreign country authorizes it.**

When communicating with hams from other countries, communications incidental to the purposes of the amateur radio service and remarks of a personal character are types of international communications permitted by an FCC licensed amateur station.

This is to protect citizens in other countries. Unlike the United States, not all countries allow their citizens total free speech. Use common sense when talking to a person from another country and you will be okay.

T1C03

What types of international communications are permitted by an FCC-licensed amateur station?

- A. Communications incidental to the purposes of the amateur service and remarks of a personal character
- B. Communications incidental to conducting business or remarks of a personal nature
- C. Only communications incidental to contest exchanges, all other communications are prohibited
- D. Any communications that would be permitted by an international broadcast station

T1C03

What types of international communications are permitted by an FCC-licensed amateur station?

A. Communications incidental to the purposes of the amateur service and remarks of a personal character

T1C04

When are you allowed to operate your amateur station in a foreign country?

A. When the foreign country authorizes it

B. When there is a mutual agreement allowing third party communications

C. When authorization permits amateur communications in a foreign language

D. When you are communicating with non-licensed individuals in another country

T1C04

When are you allowed to operate your amateur station in a foreign country?

A. When the foreign country authorizes it

T1C06

From which of the following locations may an FCC-licensed amateur station transmit, in addition to places where the FCC regulates communications?

- A. From within any country that belongs to the International Telecommunications Union
- B. From within any country that is a member of the United Nations
- C. From anywhere within in ITU Regions 2 and 3
- D. From any vessel or craft located in international waters and documented or registered in the United States

T1C06

From which of the following locations may an FCC-licensed amateur station transmit, in addition to places where the FCC regulates communications?

D. From any vessel or craft located in international waters and documented or registered in the United States

The Technician, General, and
Amateur Extra are the new
licenses currently available from
the FCC.

The normal term for an FCC-issued primary station/operator amateur radio license grant is **10 years.**

The grace period following the expiration of an amateur license within which the license may be renewed is **two years**.

Although your license has expired and is still within the allowable grace period, **transmitting is not allowed until the FCC license database shows that the license has been renewed.**

After passing the examination for your first amateur radio license may you operate a transmitter on an amateur service frequency **as soon as your operator/station license grant appears in the FCC's license database.**

It is very important to keep the
FCC informed of your current
mailing address.

Revocation of the station license or suspension of the operator's license may result when correspondence from the FCC is returned as undeliverable because the grantee failed to provide the correct mailing address.

T1C08

What is the normal term for an FCC-issued primary station/operator amateur radio license grant?

- A. Five years
- B. Life
- C. Ten years
- D. Twenty years

T1C08

What is the normal term for an FCC-issued primary station/operator amateur radio license grant?

C. Ten years

T1C09

What is the grace period following the expiration of an amateur license within which the license may be renewed?

- A. Two years
- B. Three years
- C. Five years
- D. Ten years

T1C09

What is the grace period following the expiration of an amateur license within which the license may be renewed?

A. Two years

T1C11

If your license has expired and is still within the allowable grace period, may you continue to operate a transmitter on amateur service frequencies?

- A. No, transmitting is not allowed until the FCC license database shows that the license has been renewed
- B. Yes, but only if you identify using the suffix GP
- C. Yes, but only during authorized nets
- D. Yes, for up to two years

T1C11

If your license has expired and is still within the allowable grace period, may you continue to operate a transmitter on amateur service frequencies?

A. No, transmitting is not allowed until the FCC license database shows that the license has been renewed

T1C10

How soon after passing the examination for your first amateur radio license may you operate a transmitter on an amateur service frequency?

- A. Immediately
- B. 30 days after the test date
- C. As soon as your operator/station license grant appears in the FCC's license database
- D. You must wait until you receive your license in the mail from the FCC

T1C10

How soon after passing the examination for your first amateur radio license may you operate a transmitter on an amateur service frequency?

C. As soon as your operator/station license grant appears in the FCC's license database

T1C13

For which licenses classes are new licenses currently available from the FCC?

- A. Novice, Technician, General, Advanced
- B. Technician, Technician Plus, General, Advanced
- C. Novice, Technician Plus, General, Advanced
- D. Technician, General, Amateur Extra

T1C13

For which licenses classes are new licenses currently available from the FCC?

D. Technician, General, Amateur Extra

T1C07

What may result when correspondence from the FCC is returned as undeliverable because the grantee failed to provide the correct mailing address?

- A. Fine or imprisonment
- B. Revocation of the station license or suspension of the operator license
- C. Require the licensee to be re-examined
- D. A reduction of one rank in operator class

T1C07

What may result when correspondence from the FCC is returned as undeliverable because the grantee failed to provide the correct mailing address?

B. Revocation of the station license or suspension of the operator license

T1D –

**Authorized and prohibited transmission:
communications with other countries;
music; exchange of information with other
services; indecent language;
compensation for use of station;
retransmission of other amateur signals;
codes and ciphers; sale of equipment;
unidentified transmissions; broadcasting**

A very popular activity in Amateur Radio is “chasing DX”. DX is ham lingo for long distance communications and generally when a ham talks about “working DX” he or she is talking about working a station outside of their own country.

For hams in the United States, communicating with a station in Europe, Africa, Asia, etc is considered “working DX”. This activity is fun.

Awards can be obtained for obtaining certain goals such as contacting stations in 100 different countries.

There are some countries however, that hams are not allowed to talk to. FCC licensed amateur are prohibited from exchanging communications with **any country whose administration has notified the ITU that it objects to such communications.**

Amateurs generally may only talk to each other. They are not allowed to communicate with stations from other services except in a life or death situation.

Only **during Armed Forces Day Communications Test** may an FCC licensed amateur station exchange messages with a U.S. military station.

Transmissions that contain obscene or indecent words or language **are prohibited by the FCC**. While the FCC has not come out with an official list, please respect others and refrain from using obscene language on our ham bands.

Remember, children interested in ham radio (and their parents) may be listening to you.

Music is not allowed to be transmitted by an amateur radio station. Remember: we are communicators not broadcasters, so turn your broadcast radio or TV off when using the ham bands.

The only time an amateur station is authorized to transmit music is **when it is incidental to an authorized retransmission of manned spacecraft communications.**

The FCC makes this exception because it is common practice for some stations to retransmit space station communications when authorized to do so.

Only when transmitting control commands to space stations or radio control craft is the transmission of codes or ciphers that hide the meaning of a message allowed by an amateur station.

The only transmissions an amateur may make without identifying with his or her call sign is **when transmitting signals to control a model craft**

T1D01

With which countries are FCC-licensed amateur stations prohibited from exchanging communications?

- A. Any country whose administration has notified the ITU that it objects to such communications
- B. Any country whose administration has notified the ARRL that it objects to such communications
- C. Any country engaged in hostilities with another country
- D. Any country in violation of the War Powers Act of 1934

T1D01

With which countries are FCC-licensed amateur stations prohibited from exchanging communications?

A. Any country whose administration has notified the ITU that it objects to such communications

T1D02

On which of the following occasions may an FCC-licensed amateur station exchange messages with a U.S. military station?

- A. During an Armed Forces Day Communications Test
- B. During a Memorial Day Celebration
- C. During an Independence Day celebration
- D. During a propagation test

T1D02

On which of the following occasions may an FCC-licensed amateur station exchange messages with a U.S. military station?

A. During an Armed Forces Day Communications Test

T1D03

When is the transmission of codes or ciphers that hide the meaning of a message allowed by an amateur station?

- A. Only during contests
- B. Only when operating mobile
- C. Only when transmitting control commands to space stations or radio control craft
- D. Only when frequencies above 1280 MHz are used

T1D03

When is the transmission of codes or ciphers that hide the meaning of a message allowed by an amateur station?

C. Only when transmitting control commands to space stations or radio control craft

T1D04

What is the only time an amateur station is authorized to transmit music?

- A. When incidental to an authorized retransmission of manned spacecraft communications
- B. When the music produces no spurious emissions
- C. When the purpose is to interfere with an illegal transmission
- D. When the music is transmitted above 1280 MHz

T1D04

What is the only time an amateur station is authorized to transmit music?

A. When incidental to an authorized retransmission of manned spacecraft communications

T1D06

What, if any, are the restrictions concerning transmission of language that may be considered indecent or obscene?

- A. The FCC maintains a list of words that are not permitted to be used on amateur frequencies
- B. Any such language is prohibited
- C. The ITU maintains a list of words that are not permitted to be used on amateur frequencies
- D. There is no such prohibition

T1D06

What, if any, are the restrictions concerning transmission of language that may be considered indecent or obscene?

B. Any such language is prohibited

T1D11

When may an amateur station transmit without identifying?

- A. When the transmissions are of a brief nature to make station adjustments
- B. When the transmissions are unmodulated
- C. When the transmitted power level is below 1 watt
- D. When transmitting signals to control a model craft

T1D11

When may an amateur station transmit without identifying?

D. When transmitting signals to control a model craft

Amateurs are allowed to sell their equipment over the air as long as it is not done on a regular basis.

Amateur radio operators may use their stations to notify other hams of the availability of equipment for sale or trade **when the equipment is normally used in an amateur radio station and such activity is not conducted on a regular basis.**

The control operator of an amateur radio station may accept compensation **when the communications is incidental to classroom instruction at an educational institution.**

In other words, a teacher at a high school may bring his amateur radio station to the class room to demonstrate ham radio to his students.

T1D05

When may amateur radio operators use their stations to notify other amateurs of the availability of equipment for sale or trade?

- A. When the equipment is normally used in an amateur station and such activity is not conducted on a regular basis
- B. When the asking price is \$100.00 or less
- C. When the asking price is less than its appraised value
- D. When the equipment is not the personal property of either the station licensee or the control operator or their close relatives

T1D05

When may amateur radio operators use their stations to notify other amateurs of the availability of equipment for sale or trade?

A. When the equipment is normally used in an amateur station and such activity is not conducted on a regular basis

T1D08

In which of the following circumstances may the control operator of an amateur station receive compensation for operating the station?

- A. When engaging in communications on behalf of their employer
- B. When the communication is incidental to classroom instruction at an educational institution
- C. When re-broadcasting weather alerts during a RACES net
- D. When notifying other amateur operators of the availability for sale or trade of apparatus

T1D08

In which of the following circumstances may the control operator of an amateur station receive compensation for operating the station?

B. When the communication is incidental to classroom instruction at an educational institution

Amateurs are not allowed to hide the meaning of their transmissions. No secret “spy type” communications are allowed by the FCC.

However, the transmission of codes or ciphers is allowed to hide the meaning of a message transmitted by an amateur station only when transmitting control commands to space stations or radio control craft.

Transmissions intended for reception by the general public is the meaning of the term broadcasting in the FCC rules for the amateur services.

Amateurs are authorized to transmit signals related to broadcasting, program production, or news gathering, assuming no other means is available **only where such communications directly relates to the immediate safety of human life or protection of property.**

Brief transmissions to make station adjustments is a type of communications permitted in the Amateur Radio Service.

Amateurs may engage in broadcasting only **when transmitting code practice, information bulletins, or transmissions necessary to provide emergency communications.**

Auxiliary, repeater, or space stations are types of amateur stations that can automatically retransmit the signals of other amateur stations.

T1D09

Under which of the following circumstances are amateur stations authorized to transmit signals related to broadcasting, program production, or news gathering, assuming no other means is available?

- A. Only where such communications directly relate to the immediate safety of human life or protection of property
- B. Only when broadcasting communications to or from the space shuttle
- C. Only where noncommercial programming is gathered and supplied exclusively to the National Public Radio network
- D. Only when using amateur repeaters linked to the Internet

T1D09

Under which of the following circumstances are amateur stations authorized to transmit signals related to broadcasting, program production, or news gathering, assuming no other means is available?

A. Only where such communications directly relate to the immediate safety of human life or protection of property

T1D10

What is the meaning of the term “broadcasting” in the FCC rules for the amateur services?

- A. Two-way transmissions by amateur stations
- B. Transmission of music
- C. Transmission of messages directed only to amateur operators
- D. Transmissions intended for reception by the general public

T1D10

What is the meaning of the term “broadcasting” in the FCC rules for the amateur services?

D. Transmissions intended for reception by the general public

T1D12

Under which of the following circumstances may an amateur radio station engage in broadcasting?

- A. Under no circumstances
- B. When transmitting code practice, information bulletins, or transmissions necessary to provide emergency communications
- C. At any time as long as no music is transmitted
- D. At any time as long as the material being transmitted did not originate from a commercial broadcast station

T1D12

Under which of the following circumstances may an amateur radio station engage in broadcasting?

B. When transmitting code practice, information bulletins, or transmissions necessary to provide emergency communications

T1D07

What types of amateur stations can automatically retransmit the signals of other amateur stations?

- A. Auxiliary, beacon, or Earth stations
- B. Auxiliary, repeater, or space stations
- C. Beacon, repeater, or space stations
- D. Earth, repeater, or space stations

T1D07

What types of amateur stations can automatically retransmit the signals of other amateur stations?

B. Auxiliary, repeater, or space stations

T1E –

Control operator and control types: control operator required; eligibility; designation of control operator; privileges and duties; control point; local, automatic and remote control; location of control operator

An Amateur Station is **never** permitted to transmit without a control operator. As a licensed amateur radio operator, you are usually the control operator of your own station. However, you may appoint another licensed amateur to be the control operator of your station.

The class of operator license the control operator holds determines the transmit privileges of the station being controlled.

An Extra class operator may be the control operator of a Technician class station and operate on all frequencies available to the Extra class ham.

A Technician class ham may be the control operator of an Extra class station;

however, the Technician class ham is limited to using only frequencies allowed to the technician class amateur.

Here is what the FCC says:

- An amateur station must have a control operator only when the station is transmitting.

- Only persons for whom an amateur operator/primary station license grant appears in the FCC database or who is authorized for alien reciprocal operation is eligible to be the control operator of an amateur station.

- **The station licensee** must designate the station control operator.

- The class of operator license held by the control operator determines the transmitting privileges of an amateur station.

- The FCC presumes the station licensee to be the control operator of an amateur station unless documentation to the contrary is in the station records.

- The control operator and the station licensee are equally **responsible** for the proper operation of an Amateur Radio Station.

T1E01

When is an amateur station permitted to transmit without a control operator?

- A. When using automatic control, such as in the case of a repeater
- B. When the station licensee is away and another licensed amateur is using the station
- C. When the transmitting station is an auxiliary station
- D. Never

T1E01

When is an amateur station permitted to transmit without a control operator?

D. Never

T1E02

Who may a station licensee designate to be the control operator of an amateur station?

- A. Any U.S. citizen or registered alien
- B. Any family member of the station licensee
- C. Any person over the age of 18
- D. Only a person for whom an amateur operator/primary station license grant appears in the FCC database or who is authorized for alien reciprocal operation

T1E02

Who may a station licensee designate to be the control operator of an amateur station?

D. Only a person for whom an amateur operator/primary station license grant appears in the FCC database or who is authorized for alien reciprocal operation

T1E03

Who must designate the station control operator?

- A. The station licensee
- B. The FCC
- C. The frequency coordinator
- D. The ITU

T1E03

Who must designate the station control operator?

A. The station licensee

T1E04

What determines the transmitting privileges of an amateur station?

A. The frequency authorized by the frequency coordinator

B. The class of operator license held by the station licensee

C. The highest class of operator license held by anyone on the premises

D. The class of operator license held by the control operator

T1E04

What determines the transmitting privileges of an amateur station?

D. The class of operator license held by the control operator

T1E07

When the control operator is not the station licensee, who is responsible for the proper operation of the station?

- A. All licensed amateurs who are present at the operation
- B. Only the station licensee
- C. Only the control operator
- D. The control operator and the station licensee are equally responsible

T1E07

When the control operator is not the station licensee, who is responsible for the proper operation of the station?

D. The control operator and the station licensee are equally responsible

The location at which the control operator function is performed is considered the amateur station control point.

The control operator and station licensee are equally responsible for the proper operation of the station when the control operator is not the station licensee.

At no time under normal circumstances, may a Technician Class licensee be the control operator of a station operating in an exclusive Extra Class operator segment of the amateur bands.

The FCC presumes the Station Licensee to be the control operator of an amateur station, unless documentation to the contrary is in the station records.

Remote control is the type of control defined by the FCC when controlling a station over the internet.

Remote control is used when the control operator is not at the station location, but can indirectly manipulate the operating adjustments of a station.

An example of remote control as defined in Part 97 is **operating the station over the internet.**

Local control is personally being at the station and controlling it directly. An example of local control would be transmitting using a hand held radio.

Automatic control is the type of control that is permissible for the control operator to be at a location other than the control point.

Automatic control is the type of control being used for **repeater operation** when the control operator is not present at a control point. APRS network digipeaters operate under **automatic** control.

T1E05

What is an amateur station control point?

- A. The location of the station's transmitting antenna
- B. The location of the station transmitting apparatus
- C. The location at which the control operator function is performed
- D. The mailing address of the station licensee

T1E05

What is an amateur station control point?

C. The location at which the control operator function is performed

T1E06

Under what type of control do APRS network digipeaters operate?

- A. Automatic
- B. Remote
- C. Local
- D. Manual

T1E06

Under what type of control do APRS network digipeaters operate?

A. Automatic

T1E08

Which of the following is an example of automatic control?

- A. Repeater operation
- B. Controlling the station over the Internet
- C. Using a computer or other device to automatically send CW
- D. Using a computer or other device to automatically identify

T1E08

Which of the following is an example of automatic control?

A. Repeater operation

T1E09

What type of control is being used when the control operator is at the control point?

- A. Radio control
- B. Unattended control
- C. Automatic control
- D. Local control

T1E09

What type of control is being used when the control operator is at the control point?

D. Local control

T1E10

Which of the following is an example of remote control as defined in Part 97?

- A. Repeater operation
- B. Operating the station over the Internet
- C. Controlling a model aircraft, boat or car by amateur radio
- D. All of these choices are correct

T1E10

Which of the following is an example of remote control as defined in Part 97?

B. Operating the station over the Internet

T1E11

Who does the FCC presume to be the control operator of an amateur station, unless documentation to the contrary is in the station records?

- A. The station custodian
- B. The third party participant
- C. The person operating the station equipment
- D. The station licensee

T1E11

Who does the FCC presume to be the control operator of an amateur station, unless documentation to the contrary is in the station records?

D. The station licensee

T1E12

When, under normal circumstances, may a Technician Class licensee be the control operator of a station operating in an exclusive Extra Class operator segment of the amateur bands?

- A. At no time
- B. When operating a special event station
- C. As part of a multi-operator contest team
- D. When using a club station whose trustee is an Extra Class operator licensee

T1E12

When, under normal circumstances, may a Technician Class licensee be the control operator of a station operating in an exclusive Extra Class operator segment of the amateur bands?

A. At no time

T1F -

Station identification; repeaters;
third party communications; club
stations; FCC inspection

An amateur station is required to transmit its assigned call sign **at least every 10 minutes during and at the end of a contact.**

While not required, it is considered common courtesy to also identify on your first transmission so that everyone listening will know who you are.

Call sign identification can be done in several ways:

- Call sign identification is required for a station transmitting phone signals by sending the call sign using CW or phone emission.

- Phone emission **in the English language** is an acceptable method of station identification when operating in the phone sub-band.

It is not necessary to wait 10 minutes to identify your station. You may identify at any time during the 10 minutes and thus reset the countdown.

During public service, emergency, or training events, amateur stations may **use tactical call signs** such as “Race Headquarters”, “Checkpoint one”, etc.

However, you still must identify your stations FCC assigned call sign **At the end of each communication and every ten minutes during a communication.**

The best way to insure that you identify your FCC assigned call every 10 minutes or at the end of a contact when using tactical calls is to simply say your call after delivering you communications.

T1F01

What type of identification is being used when identifying a station on the air as Race Headquarters?

A. Tactical call sign

B. An official call sign reserved for RACES drills

C. SSID

D. Broadcast station

T1F01

What type of identification is being used when identifying a station on the air as Race Headquarters?

A. Tactical call sign

T1F02

When using tactical identifiers such as “Race Headquarters” during a community service net operation, how often must your station transmit the station’s FCC-assigned call sign?

- A. Never, the tactical call is sufficient
- B. Once during every hour
- C. At the end of each communication and every ten minutes during a communication
- D. At the end of every transmission

T1F02

When using tactical identifiers such as “Race Headquarters” during a community service net operation, how often must your station transmit the station’s FCC-assigned call sign?

C. At the end of each communication and every ten minutes during a communication

T1F03

When is an amateur station required to transmit its assigned call sign?

- A. At the beginning of each contact, and every 10 minutes thereafter
- B. At least once during each transmission
- C. At least every 15 minutes during and at the end of a communication
- D. At least every 10 minutes during and at the end of a communication

T1F03

When is an amateur station required to transmit its assigned call sign?

D. At least every 10 minutes during and at the end of a communication

T1F04

Which of the following is an acceptable language to use for station identification when operating in a phone sub-band?

- A. Any language recognized by the United Nations
- B. Any language recognized by the ITU
- C. The English language
- D. English, French, or Spanish

T1F04

Which of the following is an acceptable language to use for station identification when operating in a phone sub-band?

C. The English language

T1F05

What method of call sign identification is required for a station transmitting phone signals?

- A. Send the call sign followed by the indicator RPT
- B. Send the call sign using CW or phone emission
- C. Send the call sign followed by the indicator R
- D. Send the call sign using only phone emission

T1F05

What method of call sign identification is required for a station transmitting phone signals?

B. Send the call sign using CW or phone emission

Using-self assigned indicators when identifying is allowed by the FCC. KL7CC stroke W3, KL7CC slant W3 and KL7CC slash W3 are acceptable uses of self-assigned indicators when identifying using a phone transmission.

The indicators /KT, /AE or /AG when using new license privileges earned by CSCE while waiting for an upgrade to a previously issued license to appear in the FCC license database are required by the FCC.

T1F06

Which of the following formats of a self-assigned indicator is acceptable when identifying using a phone transmission?

- A. KL7CC stroke W3
- B. KL7CC slant W3
- C. KL7CC slash W3
- D. All of these choices are correct

T1F06

Which of the following formats of a self-assigned indicator is acceptable when identifying using a phone transmission?

D. All of these choices are correct

T1F08

Which indicator is required by the FCC to be transmitted after a station call sign?

- A. /M when operating mobile
- B. /R when operating a repeater
- C. / followed the FCC Region number when operating out of the region in which the license was issued
- D. /KT, /AE or /AG when using new license privileges earned by CSCE while waiting for an upgrade to a previously issued license to appear in the FCC license database

T1F08

Which indicator is required by the FCC to be transmitted after a station call sign?

D. /KT, /AE or /AG when using new license privileges earned by CSCE while waiting for an upgrade to a previously issued license to appear in the FCC license database

A **Repeater station** is the type of amateur station that simultaneously retransmits the signal of another amateur station on a different channel or channels.

The control operator of the originating station is accountable should a repeater inadvertently retransmit communications that violate the FCC rules.

T1F09

What type of amateur station simultaneously retransmits the signal of another amateur station on a different channel or channels?

- A. Beacon station
- B. Earth station
- C. Repeater station
- D. Message forwarding station

T1F09

What type of amateur station simultaneously retransmits the signal of another amateur station on a different channel or channels?

C. Repeater station

T1F10

Who is accountable should a repeater inadvertently retransmit communications that violate the FCC rules?

- A. The control operator of the originating station
- B. The control operator of the repeater
- C. The owner of the repeater
- D. Both the originating station and the repeater owner

T1F10

Who is accountable should a repeater inadvertently retransmit communications that violate the FCC rules?

A. The control operator of the originating station

FCC rules authorize the transmission of non-emergency third party communications to any station whose government permits such communications.

In this case, the FCC is talking about a non-ham as being a third party.

An example of third party communications would be if a ham was giving a demonstration of his station and allowed the non-ham to make comments over the air to the station being communicated with.

When is a non-licensed person allowed to speak to a foreign station using a station under the control of a Technician Class control operator? The foreign station must be one with which the U.S. has a third party agreement.

T1F07

Which of the following restrictions apply when a non-licensed person is allowed to speak to a foreign station using a station under the control of a Technician Class control operator?

- A. The person must be a U.S. citizen
- B. The foreign station must be one with which the U.S. has a third party agreement
- C. The licensed control operator must do the station identification
- D. All of these choices are correct

T1F07

Which of the following restrictions apply when a non-licensed person is allowed to speak to a foreign station using a station under the control of a Technician Class control operator?

B. The foreign station must be one with which the U.S. has a third party agreement

T1F11

To which foreign stations do the FCC rules authorize the transmission of non-emergency third party communications?

- A. Any station whose government permits such communications
- B. Those in ITU Region 2 only
- C. Those in ITU Regions 2 and 3 only
- D. Those in ITU Region 3 only

T1F11

To which foreign stations do the FCC rules authorize the transmission of non-emergency third party communications?

A. Any station whose government permits such communications

At least 4 persons are required to be members of a club for a club station license to be issued by the FCC.

Any time upon request by an FCC representative is when the station licensee must make the station and its records available for FCC inspection.

T1F12

How many persons are required to be members of a club for a club station license to be issued by the FCC?

- A. At least 5
- B. At least 4
- C. A trustee and 2 officers
- D. At least 2

T1F12

How many persons are required to be members of a club for a club station license to be issued by the FCC?

B. At least 4

T1F13

When must the station licensee make the station and its records available for FCC inspection?

- A. At any time ten days after notification by the FCC of such an inspection
- B. At any time upon request by an FCC representative
- C. Only after failing to comply with an FCC notice of violation
- D. Only when presented with a valid warrant by an FCC official or government agent

T1F13

When must the station licensee make the station and its records available for FCC inspection?

B. At any time upon request by an FCC representative