

Technician License Class



Tulsa Amateur Radio Club

Slides by Tom White, K5EHX

Images from ARRL, Wikipedia, Other Sources

21/08/06

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Shoot for 50 minutes presentation time.

Chapter 6

Operating Regulations

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Control Operator

- The Control Operator is an important definition in the rules!
 - A licensed amateur - either in the FCC database or an alien with a reciprocal operating agreement.
- “An operator designated by the licensee to be responsible for the station's transmissions to assure compliance with FCC rules.”
 - Must be a technician
 - Can be someone besides you!



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T1C01 What is required before you can control an amateur station in the US? You must be named in the FCC amateur license database, or be an alien with reciprocal operating authorization

T2C01 What must every amateur station have when transmitting? A control operator

T2C03 What minimum class of amateur license must you hold to be a control operator of a repeater station? Technician

T2C04 Who is responsible for the transmissions from an amateur station? Control operator

T2C12 What is the definition of a control operator of an amateur station? An operator designated by the licensee to be responsible for the station's transmissions to assure compliance with FCC rules

Control Point

- The location at which the control operator function is performed.
 - Can be remote
 - Can be automatic - in certain circumstances
- There must be a control operator at the control point when a station is transmitting.

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T2C06 What is the control point of an amateur station? The location at which the control operator function is performed

T2C05 When must an amateur station have a control operator? Whenever the station is transmitting

Multiple Operators

- There may be two operators at one station.
 - Both are responsible for proper operation.
 - May operate with the privileges of the higher license class.
- If you are using someone else's station as the only operator, you must operate within the privileges of your own license class.



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T2D01 Who is responsible for proper operation if you transmit from another amateur's station? Both of you

T2D02 What operating privileges are allowed when another amateur holding a higher class license is controlling your station? All privileges allowed by the higher class license

T2D03 What operating privileges are allowed when you are the control operator at the station of another amateur who has a higher class license than yours? Only the privileges allowed by your license

Identification

You must ID every 10 minutes or at the end of your communication.

(Yes, you've heard this before somewhere!)

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- T2B01 What must you transmit to identify your amateur station? Your call sign. NOT Your tactical ID, NOT Your first name and your location, NOT Your full name
- T2B05 What identification is required when two amateur stations end communications? Each station must transmit its own call sign
- T2B03 How often must an amateur station transmit the assigned call sign? Every 10 minutes during communications and at the end of each communication
- T2B06 What is the longest period of time an amateur station can operate without transmitting its call sign? 10 minutes

Unidentified Transmissions

- Transmitting a signal without IDing is an “unidentified transmission” and is not legal.
- While testing equipment, sometimes you must send a brief transmission to make sure it is working properly. You still have to send your ID!

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T2B02 What is a transmission called that does not contain a station identification?

Unidentified communications or signals

T3A05 What term describes a brief test transmission that does not include any station identification? An illegal unidentified transmission

T3A06 What must an amateur do when making a transmission to test equipment or antennas? Properly identify the station

Special Identification

- When you are speaking to another amateur operator using a language other than English, you must identify using the English language.
- When operating while using a special event call sign, you must give your own ID once per hour.



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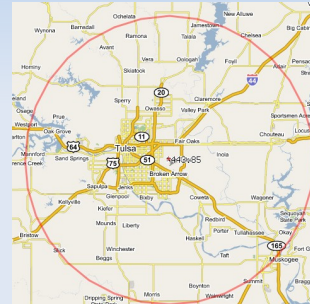


T2B07 What is a permissible way to identify your station when you are speaking to another amateur operator using a language other than English? You must identify using the English language; NOT You must identify using the official version of the foreign language, NOT Identification is not required when using other languages, NOT You must identify using phonetics

T2B08 How often must you identify using your assigned call sign when operating while using a special event call sign? Once per hour

More special IDs

- A repeater can ID several ways:
 - By phone (voice) using the English language
 - By video image conforming to applicable standards
 - By Morse code at a speed not to exceed 20 words per minute
- When visiting a station of a ham with a lower license class and using a frequency not authorized to his or her class of license, send his (or her) call sign first, followed by your call sign.



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T2B04 What is an acceptable method of transmitting a repeater station identification?
By phone using the English language; By video image conforming to applicable standards; By Morse code at a speed not to exceed 20 words per minute

T2B10 What is the correct way to identify when visiting a station if you hold a higher class license than that of the station licensee and you are using a frequency not authorized to his class of license?
Send his call sign first, followed by your call sign

Harmful Interference

- Harmful interference is when one station “disturbs other communications”.
- Harmful interference is a Bad Thing, and is never permitted.
- If you unintentionally interfere with another communication, you should quickly ID and move to another frequency.

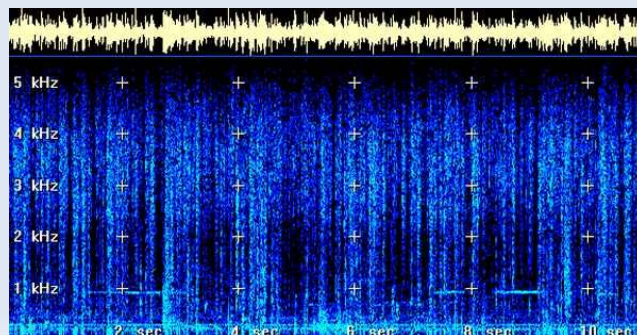
T1A10 What is a transmission called that disturbs other communications? Harmful interference

T3D04 What is the proper course of action if you unintentionally interfere with another station? Properly identify your station and move to a different frequency

T3D05 When may you deliberately interfere with another station's communications? Never

Reducing Unwanted Interference

- If you receive a report that your transmissions are causing splatter or interference on nearby frequencies, you should check your transmitter for off frequency operation or spurious emissions.
- You can reduce on the air interference when testing your transmitter by using a dummy load when testing.



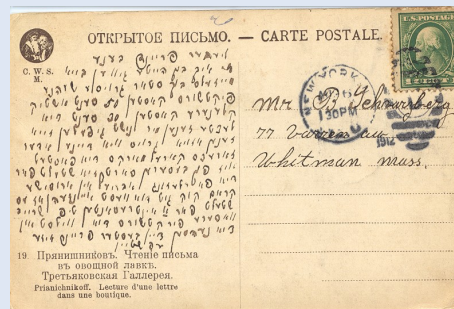
WSIAS

T3D01 What should you do if you receive a report that your transmissions are causing splatter or interference on nearby frequencies? Check transmitter for off frequency operation or spurious emissions

T3D08 What is the best way to reduce on the air interference when testing your transmitter? Use a dummy load when testing

Third Party Communications

- A message sent between two amateur stations for someone else is called "Third Party Traffic".
- It is illegal to pass third party traffic for some countries, always check to see if there is a third party traffic agreement in place between the US and the other country - before handling traffic (messages).



T2D05 What is the definition of third-party communications? A message sent between two amateur stations for someone else

Automatically Controlled Stations

- Some stations are “automatically controlled”, which is usually by a computer or other electronic circuit.
- These are the only stations that don't require a control operator to be at the control point.
- Repeaters are usually automatically controlled.



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T2C07 What type of amateur station does not require a control operator to be at the control point? An automatically controlled station

T2C08 What are the three types of station control permitted and recognized by FCC rule? Local, remote and automatic control

T2C09 What type of control is being used on a repeater when the control operator is not present? Automatic control

Types of Station Control

- The two ways for a control operator to control a station are with
 - Local control
 - Remote control

Prohibited Transmissions

- Transmissions to the general public (broadcasting)
- Transmitting music
 - The ONLY exception is if you are rebroadcasting space transmissions with the permission of NASA, and NASA sends music.
- Codes, ciphers or encrypted data.
- False or deceptive signals.
- Indecent and / or obscene language.



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T2A01 When is an amateur station authorized to transmit information to the general public? Never

T2A02 When is an amateur station authorized to transmit music? Amateurs may not transmit music, except as incidental to an authorized rebroadcast of space shuttle communications

T2A03 When is the transmission of codes or ciphers 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

T2A04 When may an amateur station transmit false or deceptive signals? Never

T2A05 When may an amateur station transmit unidentified communications? Only when sent from a space station or to control a model craft

T2A06 What does the term broadcasting mean? Transmissions intended for reception by the general public, either direct or relayed

T2A07 Which of the following are specifically prohibited in the Amateur Radio Service? Indecent and obscene language; NOT Discussion of politics, NOT Discussion of programs on broadcast stations, NOT Morse code practice

T2A08 Which of the following one-way communications may not be transmitted in the Amateur Radio Service? Broadcasts intended for reception by the general public

More Prohibited Transmissions

- For hire or material compensation.
- For your job or business.
- You can talk about things for sale, but only amateur radio equipment on an occasional basis.
- Communication on a regular basis that could reasonably be furnished alternatively through other radio services.



T2A09 When does the FCC allow an amateur radio station to be used as a method of communication for hire or material compensation? Only when in accordance with part 97 rules

T2A10 What type of communications are prohibited when using a repeater autopatch? Calls to your employer requesting directions to a customer's office

T2A11 When may you use your station to tell people about equipment you have for sale? When you are offering amateur radio equipment for sale or trade on an occasional basis

T1C11 Which of the following types of communications are not permitted in the Amateur Radio Service? Communications on a regular basis that could reasonably be furnished alternatively through other radio services

T2D04 Which of the following is a prohibited amateur radio transmission? Using amateur radio for conducting business; NOT Using amateur radio to seek emergency assistance, NOT Using an amateur phone patch to call for a taxi or food delivery, NOT Using an amateur phone patch to call home to say you are running late

Unusual Situations

- You can operate your amateur radio equipment on an airplane only with the approval of the pilot in command and not using the aircraft's radio equipment.
- The control operator of a club station may accept compensation for sending information bulletins or Morse code practice if the station makes those transmissions for at least 40 hours per week .

T2D07 When may you operate your amateur station aboard an aircraft? Only with the approval of the pilot in command and not using the aircraft's radio equipment

T2D11 When is it permissible for the control operator of a club station to accept compensation for sending information bulletins or Morse code practice? When the station makes those transmissions for at least 40 hours per week

Chapter 6

The End