

Amateur Radio License Class

Introduction to Amateur Radio

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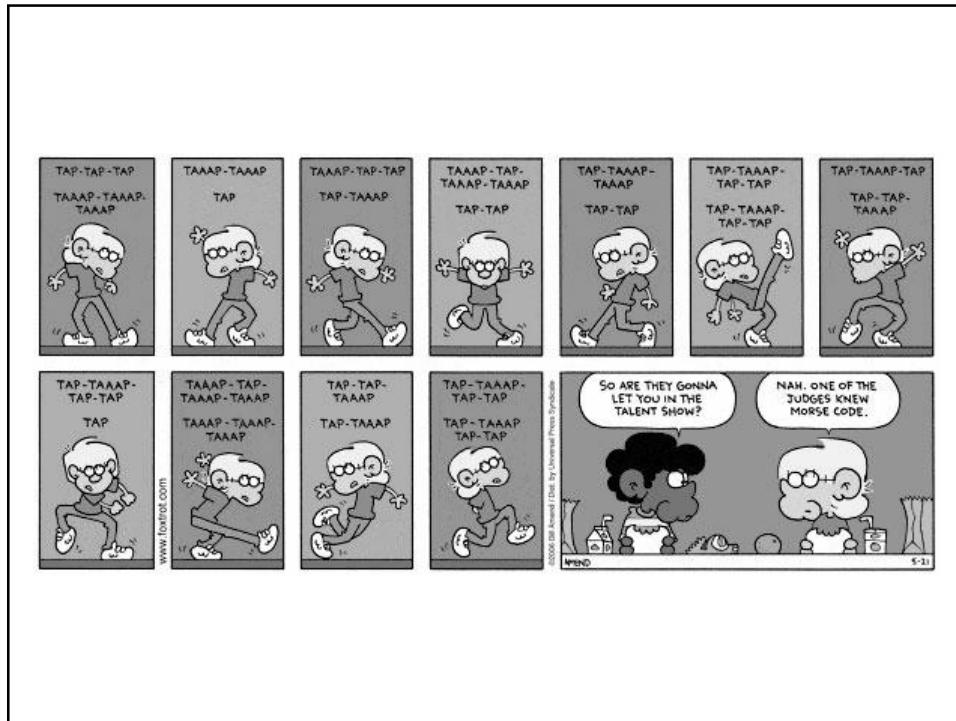
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Introduction to Amateur Radio

What is Amateur Radio?

- ◆ Local and long-distance communications
- ◆ Satellite relay
- ◆ Earth-moon-earth ("moonbounce")

- ◆ Voice communication
- ◆ Slow-scan television
- ◆ Digital modes



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What is Amateur Radio?

- ◆ Rag-chewing
- ◆ Emergency communication
- ◆ Public service communication
- ◆ Contesting
- ◆ Experimentation
- ◆ Personal communication

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What is Amateur Radio?

- ◆ Video clip of remote control airplane is at <http://video.google.com/videoplay?docid=-2237947353453839215>

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The Amateur Radio Service

- ◆ Amateur or "ham" radio is regulated by the Federal Communications Commission.
- ◆ Amateur radio is officially referred to as the Amateur Radio Service.
- ◆ Rules for amateur radio are in Title 47 (Telecommunications), Part 97 (Amateur radio service) of the Code of Federal Regulations.

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The Amateur Radio Service

*Fundamental purposes of
the Amateur Radio Service*

- ◆ Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications

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The Amateur Radio Service

*Fundamental purposes of
the Amateur Radio Service*

- ◆ Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art

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The Amateur Radio Service

*Fundamental purposes of
the Amateur Radio Service*

- ◆ Encouragement and improvement of the amateur service through rules which provide for advancing skills in both the communication and technical phases of the art

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The Amateur Radio Service

*Fundamental purposes of
the Amateur Radio Service*

- ◆ Expansion of the existing reservoir within the amateur radio service of trained operators, technicians, and electronics experts.

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The Amateur Radio Service

*Fundamental purposes of
the Amateur Radio Service*

- ◆ Continuation and extension of the amateur's unique ability to enhance international goodwill.

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The Amateur Radio Service

Other radio services:

- ◆ Citizens Band Radio Service
- ◆ Family Radio Service
- ◆ General Mobile Radio Service
- ◆ Private Land Mobile Radio Services
- ◆ Cellular Radiotelephone Service

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The ITU

- ◆ The FCC regulates the amateur service in the US and its territories
- ◆ The ITU is an agency of the United Nations for working out international telecommunication treaties and laws
- ◆ We are in region 2 (of 3) ITU regions
- ◆ Frequency allocations are managed based on the ITU region

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The ITU Alphabet

- ◆ The ITU alphabet uses internationally recognized words as substitutions for letters
- ◆ Using the ITU alphabet can help you convey letters clearly under noisy conditions

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Amateur Radio Licensing

- ◆ Amateur radio operators are issued an operator/primary station license
- ◆ Anyone can get an amateur license except a representative of a foreign government
- ◆ There is no age requirement for an amateur license

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Amateur Radio Licensing

- ◆ There are three amateur radio license classes:
 - Technician
 - General
 - Extra
- ◆ An amateur may hold only one operator/primary station license

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Amateur Radio Licensing

- ◆ Each license class has an associated multiple-choice exam
- ◆ Passing score on the exam is 75%
- ◆ The Technician exam consists of 35 questions divided into ten subelements

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Test Subelements

- ◆ T1 FCC Rules, Station license responsibilities
- ◆ T2 Control operator duties
- ◆ T3 Operating practices
- ◆ T4 Radio and electronic fundamentals
- ◆ T5 Station setup and operation
- ◆ T6 Communication modes and methods
- ◆ T7 Special operations
- ◆ T8 Emergency and Public Service communications
- ◆ T9 Radio waves, propagation, and antennas
- ◆ T0 Electrical and RF safety

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Practice Exams

- ◆ Several web sites provide online practice exams
 - AA9PW – <http://www.aa9pw.com/radio/>
 - RadioExam.org – <http://www.radioexam.org/>
 - eHam – <http://www.eham.net/exams/>
 - QRZ – <http://www.qrz.com/testing.html>

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Exam Questions

What is one of the basic purposes of the Amateur Radio Service as defined in Part 97?

- A. To support teaching of amateur radio classes in schools
- B. To provide a voluntary noncommercial communications service to the public, particularly in times of emergency*
- C. To provide free message service to the public
- D. To allow the public to communicate with other radio services

T1A02

What classes of US amateur radio licenses may currently be earned by examination?

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

T1A03

Who makes and enforces the rules for the Amateur Radio Service in the United States?

- A. The Congress of the United States
- B. *The Federal Communications Commission*
- C. The Volunteer Examiner Coordinators
- D. The Federal Bureau of Investigation

T1A07

What are two of the five fundamental purposes for the Amateur Radio Service?

- A. To protect historical radio data, and help the public understand radio history
- B. To aid foreign countries in improving radio communications and encourage visits from foreign hams
- C. To modernize radio electronic design theory and improve schematic drawings
- D. *To increase the number of trained radio operators and electronics experts, and improve international goodwill*

T1A08

What is the definition of an amateur radio station?

- A. A station in a public radio service used for radio communications
- B. A station using radio communications for a commercial purpose
- C. A station using equipment for training new broadcast operators and technicians
- D. *A station in an Amateur Radio Service consisting of the apparatus necessary for carrying on radio communications*

T1A09

What is the ITU?

- A. The International Telecommunications Utility
- B. The International Telephone Union
- C. *The International Telecommunication Union*
- D. The International Technology Union

T1B01

What is the purpose of ITU Regions?

- A. *They are used to assist in the management of frequency allocations*
- B. They are useful when operating maritime mobile
- C. They are used in call sign assignments
- D. They must be used after your call sign to indicate your location

T1B02

Where does a US amateur license allow you to transmit?

- A. From anywhere in the world
- B. *From wherever the Amateur Radio Service is regulated by the FCC or where reciprocal agreements are in place*
- C. From a country that shares a third party agreement with the US
- D. Only from the mailing address printed on your license

T1C02

Which of the following services are issued an operator station license by the FCC?

- A. Family Radio Service
- B. Amateur Radio Service*
- C. General Radiotelephone Service
- D. The Citizens Radio Service

T1D01

Who can become an amateur licensee in the US?

- A. Anyone except a representative of a foreign government*
- B. Only a citizen of the United States
- C. Anyone except an employee of the US government
- D. Anyone

T1D02

What is the minimum age required to hold an amateur license?

- A. 14 years or older
- B. 18 years or older
- C. 70 years or younger
- D. There is no minimum age requirement*

T1D03

What government agency grants your amateur radio license?

- A. The Department of Defense
- B. The Bureau of Public Communications
- C. The Department of Commerce
- D. The Federal Communications Commission*

T1D04

How many amateur operator/primary station licenses may be held by one person?

- A. As many as desired
- B. One for each portable transmitter
- C. *Only one*
- D. One for each station location

T2C02

Why should you use the International Telecommunication Union (ITU) phonetic alphabet when identifying your station?

- A. *The words are internationally recognized substitutions for letters*
- B. There is no advantage
- C. The words have been chosen to represent amateur radio terms
- D. It preserves traditions begun in the early days of amateur radio

T3A11