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ARRL The national association for
AMATEUR RADIO



Introductions

- Name, call, location
- What you like most about ham radio?
- Why do you want to upgrade?
- QSL Cards on display
- HF rig display – Icom IC-7000



Your Instructor

- Greg N9CHA, Extra Class, Osceola
- Son of Chuck WD9GWW
- Brothers, Dale W9DKB, Glen KE7FZX
- Licensed in 1981
- Enjoy teaching, HF, Digital Modes, Satellites, ARISS Mentor



Why Become a General Class Operator?

- Added HF frequencies and modes of operation.
- Worldwide communications capabilities.
- Advance your technical and operating skills.
- Because it's there to achieve.



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US Amateur Radio Bands

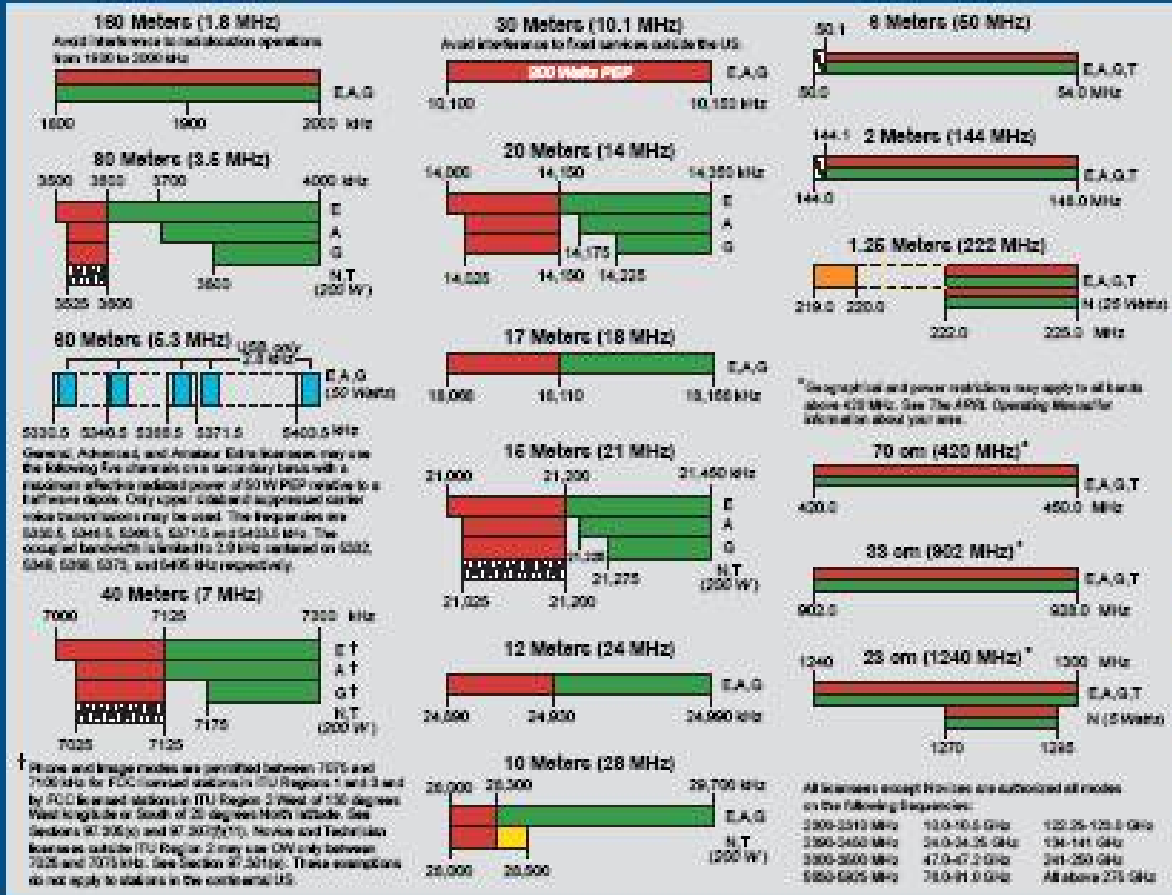
US AMATEUR POWER LIMITS

In all cases, transmitter power should be kept down to that necessary to carry a signal at the desired communication. Power is rated in watts PEP (signal) except where noted. The maximum power output is 1000 Watts.

Effective Date
February 23, 2007

Member of
ARRL The national association for
AMATEUR RADIO
www.arrl.org

325 Main Street, Newington, CT, USA 06111-1430



General, Advanced, and Amateur Extra licensees may use the following five channels on a secondary basis with a maximum effective radiated power of 50 W PEP relative to a half-wave dipole. Only upper sideband and suppressed carrier voice transmissions may be used. The frequencies are 5330.5, 5340.5, 5360.5, 5371.5 and 5400.5 kHz. The occupied bandwidth is limited to 2.0 kHz centered on 5332, 5348, 5368, 5373, and 5405 kHz respectively.

† Phone and image modes are permitted between 7075 and 7100 kHz for FCC licensed stations in ITU Region 2 and 3 and by FCC licensed stations in ITU Region 2 (east of 150 degrees West longitude or South of 20 degrees North latitude. See Sections 97.205(c) and 97.207(2)(ii). Novice and Technician licensees outside ITU Region 2 may use CW only between 7020 and 7075 kHz. See Section 97.201(a). These exceptions do not apply to stations in the continental US.

* Geographical and power restrictions may apply to all bands above 420 MHz. See The ARRL Operating Manual for information about your area.

KEY

Mode:
CW operation is permitted throughout all amateur bands except 80 meters.
CW only authorized above 90.1 MHz, except for 20-29 MHz.
Two-tone tests are an authorized class B1 Mode, except for 20-29 MHz.

- = RTTY and data
- = phone and image
- = CW only
- = USB phone
- = USB phone only
- = Fixed digital message forwarding systems only

E = Amateur Extra
A = Advanced
G = General
T = Technician
N = Novice

See the ARRL Web address and log for more detailed band plans.

ARRL
We're At Your Service

ARRL Headquarters:
5835 Centerville Rd. (I-95 exit 402B)
Ft. Belvoir, MD 21051

Publication Orders:
except membership:
Telephone 1-800-378-3839 (9AM-4PM)
except membership@arrl.org

Membership/Donation Desk:
Telephone 1-800-378-3839 (9AM-4PM)
except membership@arrl.org

Selling Materials/Amateur Radio:
Telephone 1-800-378-3839 (9AM-4PM)
except membership@arrl.org

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Frequency - Band - Mode

- Study the bands for General Class Operation, page 3-8 & 3-9
- 5 Questions from G1A – G1E
- We will NOT be memorizing this chart, but it's very important and used every day

With Greater Privileges...

- Probability of international communications.
- Operations near band and sub band edges.
- Operations in bands with shared use.
- Move beyond channelized operations.
- More flexible mode choices.
- Equipment more complex.
- Operating procedures for proper operation more complex.



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...Come Greater Responsibilities

- More rigorous technical knowledge for:
 - Proper equipment operation
 - Maintaining signal within band edges
 - Reducing interference
 - Personal safety
 - Equipment protection
- More rigorous operational knowledge because:
 - You will be heard around the world
 - You will be heard by other professional spectrum users
 - You represent the United States while on the air
 - Other hams will look to you to set the example



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What is Required?

- 35 question written exam covering technical concepts, operating techniques, and rules and regulations
- G1-5 G2-6 G3-3 G4-5 G5-3
- G6-3 G7-2 G8-2 G9-4 GØ-2
- Morse code is no longer required



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Approaches to Gaining a License

- “Getting by” to pass the test.
 - Study only the exam questions and answers just to pass the test.
 - If this is your approach ... then you are in the wrong place.
- Learn how to operate an Amateur Radio station properly.
 - Study the requisite materials and know the content.
 - Take the exam to prove to others that you know your stuff.
 - If this is what you want ... then you are in the right place.



Technical Examination

- The material will be covered in the sequence provided on the handout.
 - Students are expected to read the material before class.
- Prepare to ask questions to help clarify reading.
- I will not cover each and every topic to be tested.
 - I will cover the major high points, most difficult concepts, what is needed to be a safe and competent General Class ham.
 - I will answer your questions to the best of my ability.



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Class Procedures

- We will start on time, we will end on time.
- 8:30 – 10:00 Break 10:15 – 12:00
- 12:45 – 14:30 Break 14:45 – 16:00
- Expect lecture/discussion format ... don't be afraid to ask questions. I'll try and not be afraid to answer.
- Bathroom breaks at your discretion.
- If you want to arrange some snacks etc., that will be up to the students to arrange and clean-up after.



Resource Materials and Costs

- Required Materials
 - ARRL *General Class License Manual*
 - Scientific calculator that you know how to use (minimum requirements: take a square root and logs to base 10)
 - Pencils, notebook, highlighter
- Optional Materials
 - General Q&A Manual



What You Can Expect From Me

- I will conduct each class to the best of my abilities.
- If there are extenuating circumstances that prevent me from conducting the class I will make every effort to let you know.
- Course syllabus and study guide available:
www.N9XH.org/License



What I Expect From You

- That you have a desire to achieve the General Class license.
- You will attend class regularly.
- You will come to class well read and ready to learn and participate.
- You will not get so frustrated that you give up.
- **YOU WILL PASS THE EXAMS WITH EASE.**



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Class Roster

- Please carefully print the information so that I can read it:
 - Name
 - Call sign
 - Phone numbers
 - E-mail

