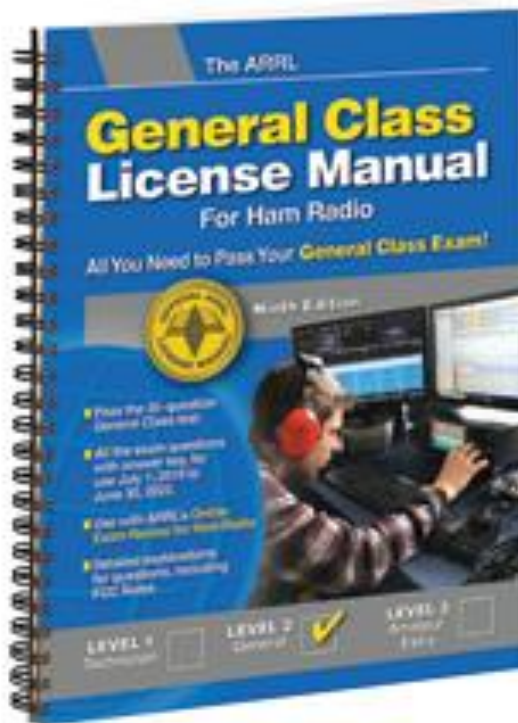


# INTRODUCTION

## 1.1 The General Class

PG 1-1

### Introduction



- 1.1 The General Class License and Amateur Radio
- 1.2 How to Use this Book
- 1.3 The Upgrade Trail

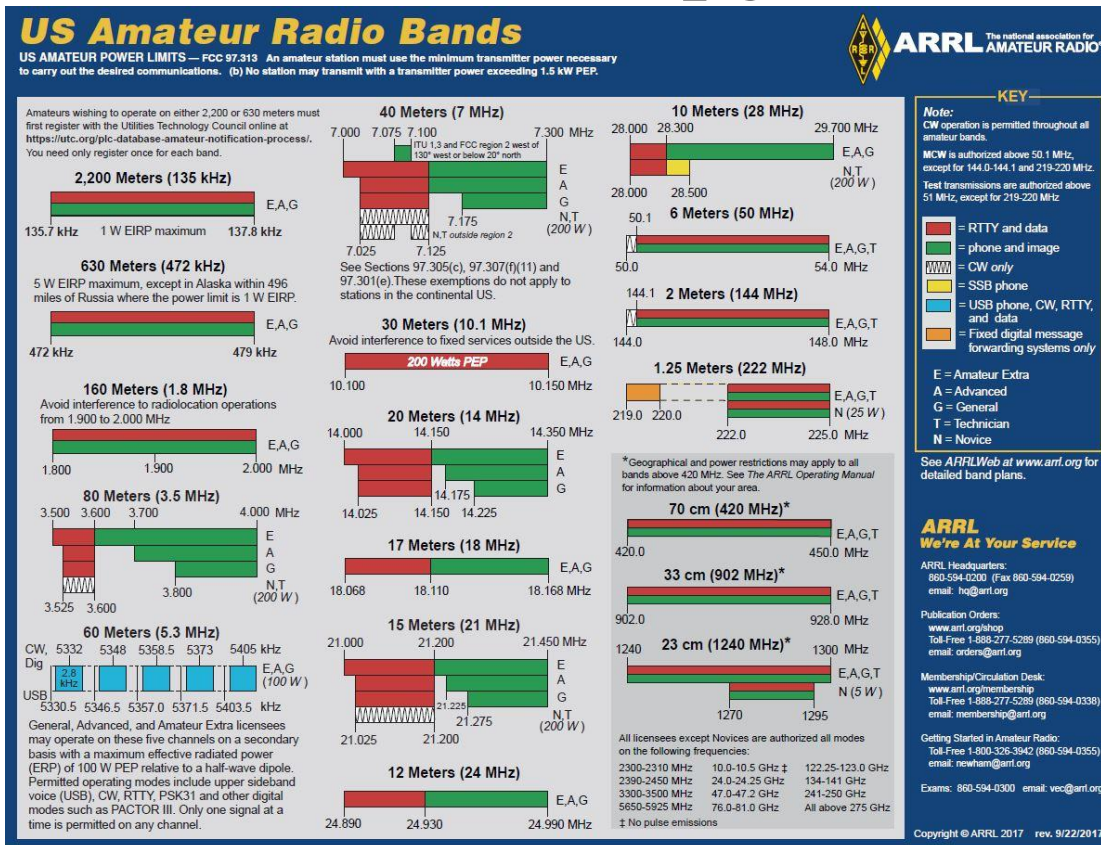
All materials approved for use by the ARRL.

# INTRODUCTION

## 1.1 The General Class License and Amateur Radio PG 1-1

### Reasons to Upgrade

- More Frequencies
- More Communications options
- New Technical Opportunities
- More Fun



# INTRODUCTION

## 1.1 The General Class License and Amateur Radio PG 1-2

### General Class Overview

Table 1.1  
Amateur License Class Examinations

License Class	Element Required	Number of Questions
Technician	2 (Written)	35 (passing is 26 correct)
General	3 (Written)	35 (passing is 26 correct)
Amateur Extra	4 (Written)	50 (passing is 38 correct)

Each license class builds on the previous license class; therefore, you must take and pass each license class in sequence.

# INTRODUCTION

## 1.1 The General Class License and Amateur Radio PG 1-3

**Expired license:** Show proof of having had the license, like an old copy of license or call book, then pass the Technician License test. At that point you will be re-instated to the highest level previously obtained.

# INTRODUCTION

## 1.1 The General Class License and Amateur Radio Pg 1-4

### Morse Code

- Morse Code (CW) is not required for license.
- CW rich amateur tradition for 100 years.
- Still in use today and by many their only mode choice.
- Interested in learning Morse Code check out [www.arrl.org/learning-morse-code](http://www.arrl.org/learning-morse-code).
- FISTS ([www.fists.org](http://www.fists.org)) organization to help hams learn Morse code.

# INTRODUCTION

## 1.2 How To Use This Book Pg 1-10, 1-11

### General Class License Manual

- Ch-2 Operating Practices
- Ch-3 Rules and Regulations
- Ch-4 Circuits and Components
- Ch-5 Radio Signals and Equipment
- Ch-6 Digital Modes
- Ch-7 Antennas
- Ch-8 Propagation
- Ch-9 Radio and Electrical Safety
- Ch-10 Glossary of Terminology
- Ch-11 Question Pool

# INTRODUCTION

## 1.2 How To Use This Book Pg 1-5

**Practice exams** go to and follow links at ...

<http://arrlexamreview.appspot.com/>

### Advanced Students

If you have a background in radio or technician, then review questions in the text.

If you answer the questions correctly, then move on to the next topic.

# INTRODUCTION

## 1.2 How To Use This Book Pg 1-5

### Self-Study or Classroom Students

**Classroom** ... Instructors will guide you through the book and provide help.

**Self-Study** ... move at any pace ... in any convenient order.

**Help** ... email question to ARRL's New Ham Desk at [newham@arri.org](mailto:newham@arri.org).

# INTRODUCTION

## 1.2 How To Use This Book Pg 1-5, 1-6

### Using the Question Pool

- Complete topic
- Review each exam questions
- Successfully answered the exam questions
- Move on to next topic

# INTRODUCTION

## 1.2 How To Use This Book Pg 1-5, 1-6

### Online Practice Exams

Use the **online practice exams** at the following web site and follow the links at ...

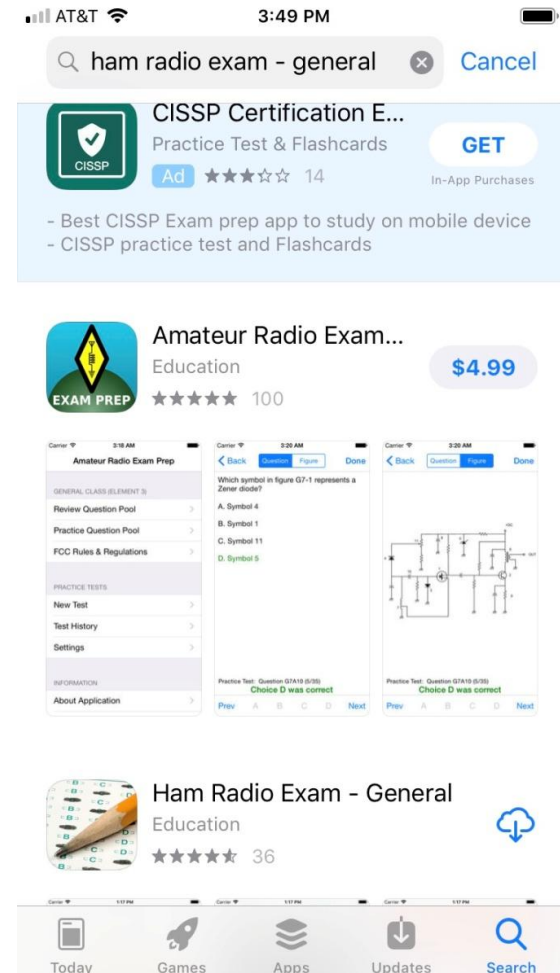
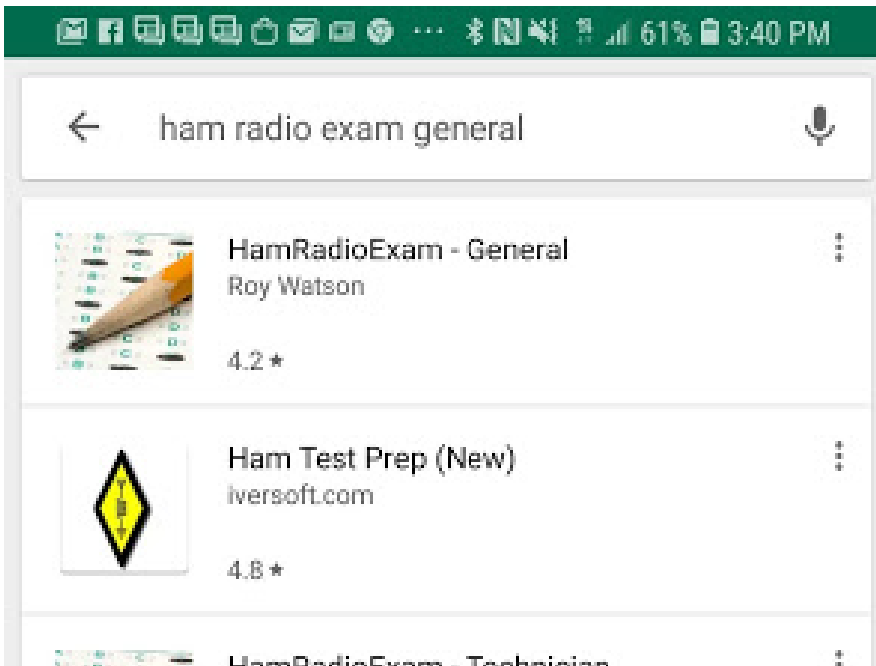
[www.arrl.org/general-class-license-manual](http://www.arrl.org/general-class-license-manual)

Practice exams simulate the real exam. Successfully passing the practice exams, then you're ready to take the **real.**

# INTRODUCTION

## 1.2 How To Use This Book Pg 1-6

Apps for Android and Iphone are also available



# INTRODUCTION

## 1.2 How To Use This Book Pg 1-8

### For Instructors

Supporting material for instructors such as Instructor's Manual, graphics files, handouts, and detail topics list.

[www.arri.org/resources-for-license-instruction](http://www.arri.org/resources-for-license-instruction)

# INTRODUCTION

## 1.2 How To Use This Book

### Conventions and Resources

- Words in *italics* are important (check Glossary back of book).
- URLs for web resources are in **bold**.
- **Sidebars** cover special material on the subject your studying.

# INTRODUCTION

## 1.3 The Upgrade Trail Pg 1-7

### Focus on HF and Advanced Modes

- Operating effectively on HF
- Digital modes: PSK31, PACTOR, WINMOR, WSJT
- Solar effects on HF propagation
- Test instruments: Oscilloscope
- Practical electronic circuits
- More types of antennas

# INTRODUCTION

## 1.3 The Upgrade Trail Pg 1-8

### Testing Process

[www.arrl.org/find-an-amateur-radio-license-exam-session](http://www.arrl.org/find-an-amateur-radio-license-exam-session)

# INTRODUCTION

## 1.3 The Upgrade Trail Pg 1-8

### The Exam

- Time: 30-60 minutes
- Booklet and answer-sheet
- VE grade and let you know Pass/fail
- CSCE doc
- Callsign/AG

# INTRODUCTION

## 1.3 The Upgrade Trail Pg 1-8

### Form 605

NCVEC Quick-Form 605 Application for Amateur Operator/Primary Station License (pg. 1-10)

FCC 605 Quick-Form Application for Authorization in the Ship, Aircraft, Amateur, Restricted and Commercial Operator, and General Mobile Radio Services (pg. 1-11)

# INTRODUCTION

## 1.3 The Upgrade Trail Pg 1-10

### FCC and ARRL/VEC Licensing Resources

- FCC Federal Registration Number (FRN)
- [fcc.gov/wireless/systems-utilities/universal-licensing-system](https://www.fcc.gov/wireless/systems-utilities/universal-licensing-system)
- [www.arrl.org/universal-licensing-system](https://www.arrl.org/universal-licensing-system)
- [www.arrl.org/call-sign-renewals-or-changes](https://www.arrl.org/call-sign-renewals-or-changes)

# INTRODUCTION

## 1.3 The Upgrade Trail Pg 1-13

### Time To Get Started

#### Table 1.3 (abbreviated) General Class Syllabus

- G1: Commission's Rules
- G2: Operating Procedures
- G3: Radio Wave Propagation
- G4: Amateur Radio Practices
- G5: Electrical Principles
- G6: Circuit Components
- G7: Practical Circuits
- G8: Signals and Emissions
- G9: Antennas and Feedlines
- G0: Electrical and RF Safety