



**ARRL** The national association for  
**AMATEUR RADIO**  
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Publications and Products  
Spring – Summer 2016

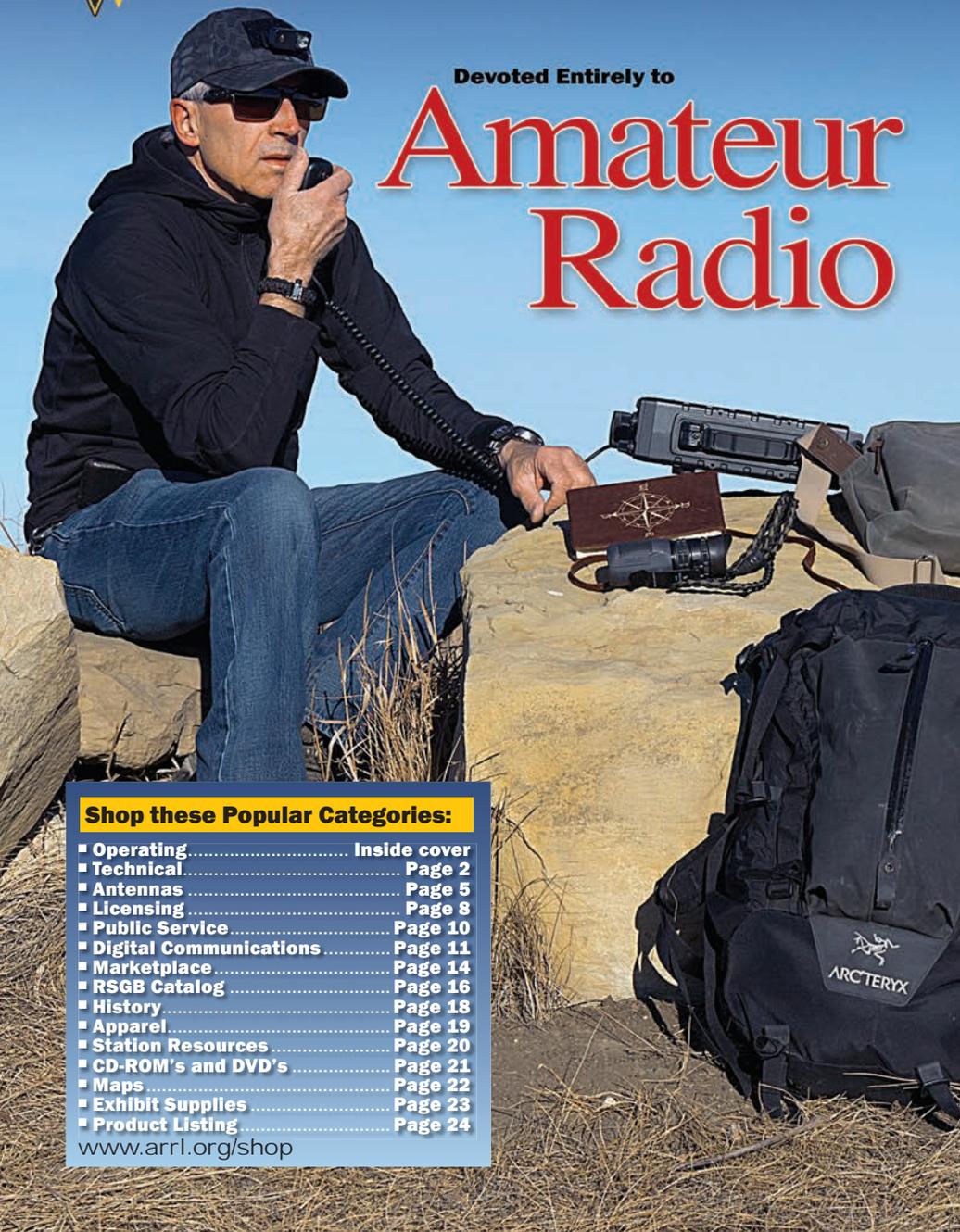
Devoted Entirely to

# Amateur Radio

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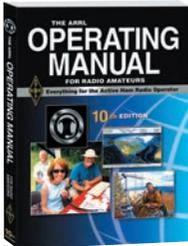
## Operating

www.arrl.org/shop ■ 1-888-277-5289

### The ARRL Operating Manual 10th Edition

Item No. 5965 – \$34.95  
ARRL Member Price! \$29.95

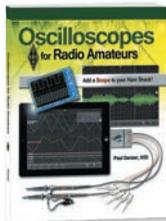
The ARRL Operating Manual is the most complete guide to Amateur Radio operating. It has everything you need to know about ham radio operating—from exploring the broad range of activities, to sharpening your on-air skills. It's filled with information every ham needs, from newcomers looking for basic operating techniques to more experienced hams looking for new things to do with their gear.



#### Includes:

- Amateur Radio
- All About Operating
- VHF/UHF
- VHF/UHF
- Disaster, Public Service and Emergency Communications
- Traffic Handling
- DXing
- Contesting
- Competitive Wireless
- HF Digital Communications
- Image Communications
- Amateur Satellites
- Legally, Safely, Appropriately
- The FCC Rules and You
- Remote Station Control Over the Internet
- Operating Awards
- References

*It's filled with information every ham needs.*



### Oscilloscopes for Radio Amateurs

Item No. 0976 – \$22.95  
ARRL Member Price \$19.95

Filled with practical information you'll need for using a scope. It begins with an overview of the oscilloscope and continues on to discuss characteristics, applications, probes, controls, and input modes. Select an oscilloscope that is right for you!

The digital edition is available in the Kindle format from Amazon.

### Discover Ham Radio e-book

This booklet is an overview of Amateur Radio and all it has to offer. It discusses the various aspects of the fascinating hobby, provides information about how to pursue your first ham radio license, and how to get started.

The digital edition is available in the Kindle format from Amazon.



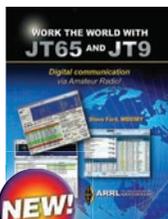
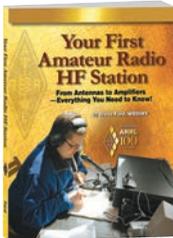
### Your First Amateur Radio HF Station

Steve Ford, WB8IMY

Item No. 0079 - \$22.95  
ARRL Member Price! \$19.95

The most complete guide to setting up your station and getting started in HF communications. Whether you're new to Amateur Radio or HF operating, live on open property or in a tiny apartment, this book will show you how to get on the air and enjoy all that Amateur Radio has to offer.

The digital edition is available in the Kindle format from Amazon.



### Work the World with JT65 and JT9

Steve Ford, WB8IMY

Item No. 0437 – \$17.95  
ARRL Member Price! \$15.95

Assemble an effective station and configure the software for best performance. Learn how to make contacts, and how to use these modes to test your station and study HF propagation.

The digital edition is available in the Kindle format from Amazon.

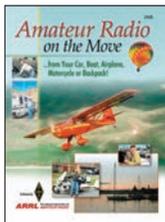
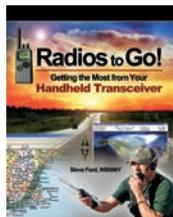
### Radios to Go!

Steve Ford, WB8IMY

Item No. 3077 – \$17.95  
ARRL Member Price! \$15.95

If you own a handheld transceiver, or trying to decide which one to buy, this is an essential guide! "Unlock" "hidden" capabilities that aren't described in user manuals.

The digital edition is available in the Kindle format from Amazon.



### Amateur Radio on the Move

—from Your Car or RV,  
Boat, Airplane, Motorcycle  
or Backpack!

Item No. 9450 – \$19.95

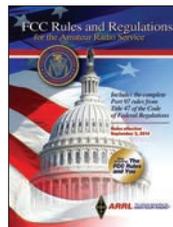
Expert advice for radio operating on the go! Mobile radios, installation, antennas, operating tips, software and more.

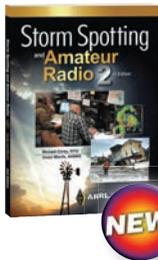
### FCC Rules and Regulations for the Amateur Radio Service

3rd Edition

Item No. 1173 – \$5.95

Includes the complete Part 97 rules from Title 47 of the Code of Federal Regulations. Rules effective September 3, 2014.





## Storm Spotting and Amateur Radio

2nd Edition  
Item No. 0574 – \$22.95  
ARRL Member Price! \$19.95

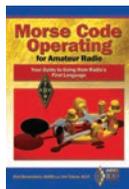
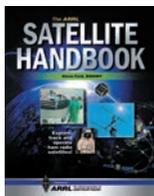
A resource for Amateur Radio operators who volunteer as trained storm spotters. Includes equipment, safety, storm spotter activation procedures, developing a local storm spotter manual, and the experiences of storm spotters from around the country.



## The ARRL Satellite Handbook

Steve Ford, WB8IMY  
Item No. 9857 – \$24.95

Bring the thrill of satellite communications within your reach! Filled with understandable descriptions and illustrations, this book includes all the tools you need to participate in this exciting field.



## Morse Code Operating for Amateur Radio

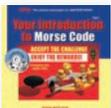
Item No. 0004 – \$17.95  
ARRL Member Price! \$15.95

Discover the advantages to learning and using Morse code, how to set up your station for CW and how to adjust your Morse code key. You'll gain the confidence you need to try out your new skills on the air!

## Your Introduction to Morse Code

Item No. 8314 – \$12.95

Don't just learn the code—master it! This set includes two audio CDs with nearly 2-1/2 hours of practice. As you learn Morse code at 5 words-per-minute. Follow the proven ARRL teaching system.



## ARRL Morse Code Oscillator Kit

Item No. 0022 – \$24.95

A great “beginners” electronics kit! Ideal for ARRL members, Amateur

Radio newcomers and instructors seeking a classroom kit-building experience.

## Morse Code Key

Item No. 0242 – \$15.95

Explore the fun of Morse code! This Morse code straight key includes an adjustment for tension and an adjustment for gap size. The base includes mounting holes. For use with ARRL's Morse Code Oscillator Kit (sold separately).



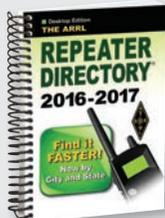
## The ARRL Repeater Directory® 2016-2017 Edition

Find it FASTER!  
Now by City and State

- Improved! Organized listings for US and Canada by state/province, city, and mode.
- Digital repeaters including D-STAR, Yaesu System Fusion, DMR, NXDN, APCO25 and even Digital TV!
- Convenient Spiral Bound Desktop Edition lays flat. Or choose the Pocket-size Edition... or both!
- Always updated with the latest listings each year!

...Plus references for operating practices, emergency message handling, tips for handling interference, guidelines for severe weather reporting to SKYWARN/National Weather Service and so much more...

App – Available Separately



Desktop Edition  
Easy-to-Read  
Size (6 x 9 inches)



Pocket-sized  
(4 x 5.25 inches)



Pocket-size  
Item No. 0536 – \$12.95  
ARRL Member Price! \$10.95

Desktop Edition  
Item No. 0543 – \$17.95  
ARRL Member Price! \$15.95



## RFinder – The Worldwide Repeater Directory

RFinder is the Worldwide Repeater Directory and the online repeater directory of ARRL.

Get access to listings for 50,000+ repeaters in 170+ countries. RFinder is integrated with EchoLink® on Android™ and iOS. An annual subscription includes access to the directory from the apps, RT Systems, CHIRP, web. rfinder.net, routes.rfinder.net, and a growing list of third party applications that use repeater data!

Only \$9.99  
Annual Subscription  
Subscribe.RFinder.net



## The ARRL Handbook 2016 Edition

**Hardcover.** Book with CD-ROM  
Item No. 0420 – \$59.95

**Softcover.** Book with CD-ROM  
Item No. 0413 – \$49.95

The ARRL Handbook is a valued reference for radio electronics and wireless communications. Since 1926, it has kept radio amateurs, professionals, and experimenters immersed in applied theory and do-it-yourself projects. It covers a wealth of information: the fundamentals of electronics and radio signals, construction practices, antennas and propagation, equipment and circuit design, and other useful reference information.

### Includes:

- **Introduction**
- **Fundamental Theory**
- **Practical Design and Principles**
- **Antenna Systems and Radio Propagation**
- **Equipment Construction and Maintenance**
- **Station Assembly and Management**
- **Operating Supplement on CD-ROM**

*The Comprehensive  
RF Engineering Reference*

## ARRL's Hands-On Radio Experiments

Ward Silver, NØAX

Volume 2  
Item No. 3411 – \$25.95

**ARRL Member Price! \$22.95**

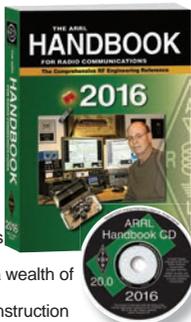
Volume 1  
Item No. 1255 – \$19.95

Over 60 short electronics experiments from the pages of QST. Step-by-step Silver expertly leads you through each experiment—and you'll make discoveries along the way. Each book includes a complete parts list!

## Hands-On Radio Parts Kit

Item No. 1255K – \$89.95

Use the parts kit to build the experiments in Volume 1 and 2 yourself! Books sold separately.



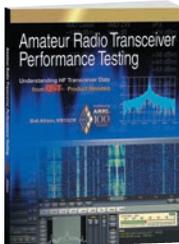
## Amateur Radio Transceiver Performance Testing

Bob Allison, WB1GCM

Item No. 0086 – \$22.95  
**ARRL Member Price! \$19.95**

Learn the technical terms and parameters presented in QST's Product Review, how published data relates to actual performance, and what the numbers mean. Great for Amateur Radio operators looking to purchase a transceiver.

The digital edition is available in the Kindle format from Amazon.



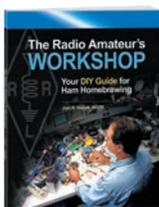
## The Radio Amateur's Workshop

Your DIY Guide to Ham Radio Homebrewing

Joel R. Hallas, W1ZR

Item No. 0482 – \$22.95  
**ARRL Member Price! \$19.95**

Your guide to setting up and maintaining an efficient at-home laboratory and work station. It describes the tools you'll need for projects ranging from assembling electronic kits to building and testing antennas.



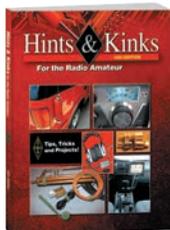
The digital edition is available in the Kindle format from Amazon.

## Hints and Kinks for the Radio Amateur

18th Edition

Item No. 5200 – \$22.95  
**ARRL Member Price! \$19.95**

8 years of the best projects and problem-solving techniques from QST's Hints & Kinks column, one of the most popular sections of the journal. Projects and practical information you can use every day!



## Experimental Methods in RF Design

Revised 1st Edition

Order No. 9239 – \$49.95

Explore wide dynamic range, low distortion radio equipment, the use of direct conversion and phasing methods, and digital signal processing. Use the models and discussion to design, build and measure equipment at both the circuit and the system level.  
**CD-ROM included.**



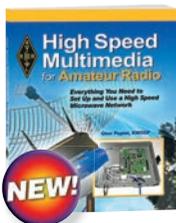
## L/C/F and Single-Layer Coil Winding Calculator

Item No. 9123 – \$12.95

Handy slide rule when tinkering with filters, oscillators, impedance matching circuits or antenna coils. Quick and easy circuit calculations.



## High Speed Multimedia for Amateur Radio



Glen Pociel, KW5GP  
Item No. 0529 – \$27.95  
**ARRL Member Price! \$24.95**

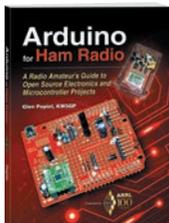
An introduction to HSMM networking, the basics of how it works, and the various technologies in use today. Learn how to deploy your own HSMM network, along with various applications to put it to work.

The digital edition is available in the Kindle format from Amazon.

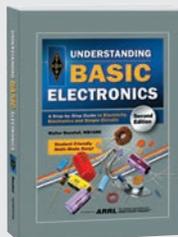
## Arduino for Ham Radio

Glen Pociel, KW5GP  
Item No. 0161 – \$34.95  
**ARRL Member Price! \$29.95**

An introduction to Arduino microcontrollers and practical projects for the Amateur Radio station. It starts by building a solid foundation through descriptions of various Arduino boards and add-on components, followed by a collection of ham radio-related practical projects.



## ARRL "Basic" Book Series



### Understanding Basic Electronics

2nd Edition  
Item No. 0823 – \$32.95  
**ARRL Member Price! \$29.95**

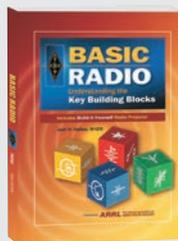
Written in a friendly, easy-to-understand style that beginners and nontechnical readers will enjoy. Real-world examples and clear illustrations make the study of electronics interesting and fun!

The digital edition is available in the Kindle format from Amazon.

### Basic Radio

Understanding the Key Building Blocks  
Joel R. Hallas, W1ZR  
Item No. 9558 – \$29.95

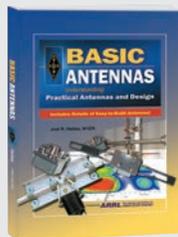
An introduction to radio for everyone. Reveals the key building blocks of radio: receivers, transmitters, antennas, and propagation. Simple, build-it-yourself projects turn theory into practice.



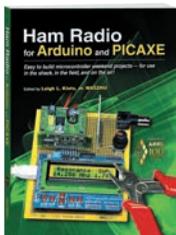
### Basic Antennas

Understanding Practical Antennas and Design  
Joel R. Hallas, W1ZR  
Item No. 9994 – \$29.95

A comprehensive introduction to antennas. Includes basic concepts, practical designs, and easy-to-build antennas. You'll learn how to make antennas that *really* work!



*Collect the Entire Set!*



## Ham Radio for Arduino and PICAXE

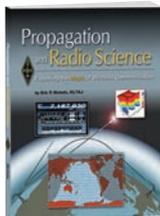
Item No. 3244 – \$34.95  
**ARRL Member Price! \$29.95**

An introduction to the fun of experimenting with microcontrollers. Features projects that will enhance your ham radio station and operating capabilities. Or, use these projects as a launch pad for creating your own projects.

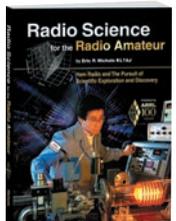
## Propagation and Radio Science

Item No. 0277 – \$27.95  
**ARRL Member Price! \$24.95**

Topics range from theoretical exploration to practical application. It explains the phenomenon we observe on the amateur bands and invites you to embark on the journey through the still-unknown radio propagation universe.



The digital edition is available in the Kindle format from Amazon.



## Radio Science for the Radio Amateur

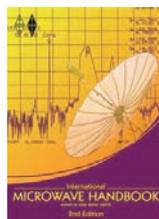
Item No. 3381 – \$27.95  
**ARRL Member Price! \$24.95**

Explore the science and technology of the radio universe. You'll find solving long-standing mysteries of radio doesn't require expensive hardware, but a scientific mindset and attention to detail.

## International Microwave Handbook

2nd Edition  
Item No. 0330 – \$29.95

Fundamental principles to designing and constructing equipment for microwave bands. Includes operating techniques, system analysis and propagation, microwave antennas, transmission lines, semiconductors and more.



## ARRL's Low Power Communication

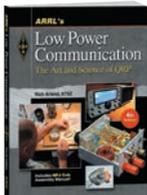
4th Edition

Rich Arland, K7SZ

Item No. 5828 – \$27.95

**ARRL Member Price! \$24.95**

Your guidebook to the fascinating world of low power QRP operating. With only 5 W or less — sometimes much less — you can enjoy conversations over hundreds and even thousands of miles. **Bonus!** Includes the complete assembly manual for the MFJ Cub Transceiver Kit (sold separately).



*Get the Book with the Kit!*

**ARRL's Low Power Communication with 40-meter CW Cub Transceiver Kit**

Item No. 5828K – \$105.95

Build the kit in just a few hours, and you'll be working the world with low-power fun!

**20-meter CW Cub Transceiver Kit**

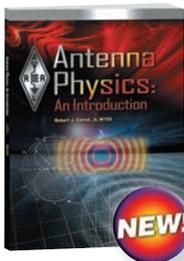
Item No. 0018 – \$89.95

## Antenna Physics: An Introduction

Item No. 0499 – \$29.95

Written to bridge the gap between basic theory and graduate-level engineering texts. Delve deeper into antenna theory, and explore the underlying principles, and mathematics, of antennas and antenna physics.

The digital edition is available in the Kindle format from Amazon.

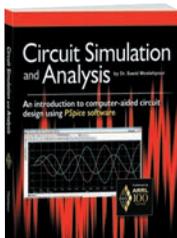
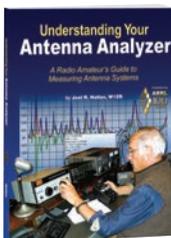


## Understanding Your Antenna Analyzer

Item No. 2889 – \$25.95

**ARRL Member Price! \$22.95**

An introduction to the various types of analyzers available, their component parts, how they operate and how to utilize them to get the best possible data. Includes product review testing and an in depth look at antenna analyzers available today.



## Circuit Simulation and Analysis

Item No. 0055 – \$27.95

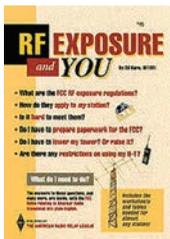
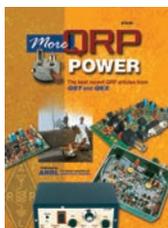
**ARRL Member Price! \$24.95**

An introduction to designing and testing simple circuits using PSpice software. It discusses the tools you'll need to create simple circuits and understand their behavior. For beginners in PSpice with a background in basic electronics.

## More QRP Power

Item No. 9655 – \$19.95

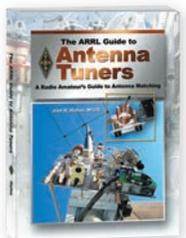
Here are *more* projects and articles for low power radio operating, from the pages of *QST* and *QEX* magazines: construction practices, transceivers, transmitters, receivers, accessories, and antennas.



## RF Exposure and You

Item No. 6621 – \$22.95

Meet the FCC RF exposure regulations! It's not complicated! Learn how to operate your station safely and legally using simple step-by-step ARRL worksheets and tables.



## The ARRL Guide to Antenna Tuners

A Radio Amateur's Guide to Antenna Matching

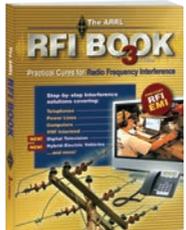
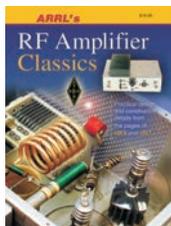
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Explore the design, construction and applications of the different types of antenna tuners. You'll gain a better understanding of your antenna system and the way it can be improved through the use of the appropriate antenna tuner.

## ARRL's RF Amplifier Classics

Item No. 9310 – \$19.95

Two-dozen projects and articles to help shorten your discovery work. There are amps for HF, MF, VHF and microwave. Build safe and reliable amplifiers. Produce loud and clean signals!



## The ARRL RFI Book

3rd Edition

Item No. 0915 – \$29.95

Interference solutions covering telephones, power lines, computers and audio equipment. Resources for addressing new realities of digital cable TV systems, over-the-air TV signals, trouble-shooting, and hybrid and all-electric automobiles.

## The ARRL Antenna Book 23rd Edition

**Hardcover.** Book with CD-ROM  
Item No. 0390 – \$59.95

**Softcover.** Book with CD-ROM  
Item No. 0444 – \$49.95

The ARRL Antenna Book has everything you need to design your own complete antenna system. Since 1939, it has maintained its place at the forefront—a single resource covering antenna theory, design and construction, and practical treatments and projects. It describes hundreds of antenna designs: wire, vertical, portable and mobile, and new high-performance VHF/UHF Yagi designs.

### Includes:

- **Basic Antenna Topics**
- **MF and HF Antennas**
- **VHF, UHF, and Microwave Antennas**
- **Special Applications**
- **Transmission Lines**
- **Building and Maintaining Antenna Systems**

*The ultimate reference  
for antennas, transmission lines  
and propagation.*



## ARRL's Small Antennas for Small Spaces

2nd Edition

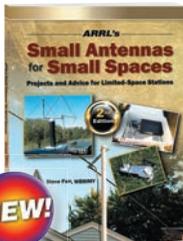
Steve Ford, WB8IMY

Item No. 0512 – \$22.95

**ARRL Member Price! \$19.95**

A resource for radio amateurs who live in apartments, condominiums, or houses on small lots. Filled with practical advice, you'll find the right antenna design to fit your space available.

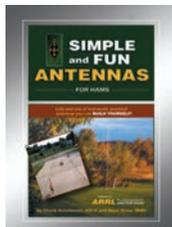
The digital edition is available in the Kindle format from Amazon.



## Simple and Fun Antennas for Hams

Item No. 8624 – \$22.95

More than 70 well-tested, fun and entirely useful projects. Hundreds of photos and illustrations. Build your first VHF or HF antenna. Explore dipoles, verticals, beams and more. These antennas really work!

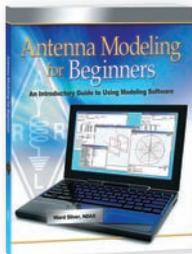
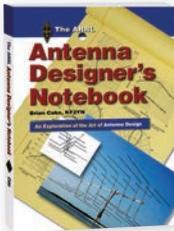


## The ARRL Antenna Designer's Notebook

Brian Cake, KF2YN

Item No. 1479 – \$34.95

Open a window into the mind of the antenna designer as the design is imagined, perfected, and constructed. It provides a thorough description of new components of antennas and the C-pole – and practical antennas made from them. CD-ROM included!



## Antenna Modeling for Beginners

Ward Silver, NØAX

Item No. 3961 – \$38.95

**ARRL Member Price! \$34.95**

guide to using modeling software for designing and evaluating antennas. It provides an introduction to EZNEC, the most popular antenna modeling program used by radio amateurs today.

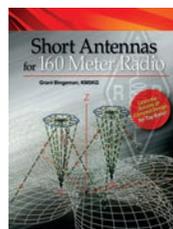
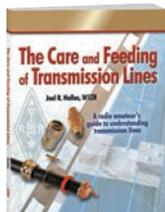
## The Care and Feeding of Transmission Lines

Joel Hallas, W1ZR

Item No. 4784 – \$27.95

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An introduction to the various types of transmission lines, key parameters of coaxial cable and balanced line types. Learn how to select the appropriate transmission line for an application and install it.



## Short Antennas for 160 Meter Radio

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**ARRL Member Price! \$19.95**

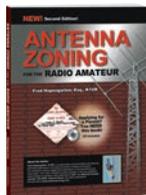
Intended for amateurs with advanced skills in antenna modeling, this book walks through innovative designs for relatively compact antennas. Enhance bandwidth, minimize loss, and employ other techniques to enjoy 160 meters.

## Antenna Zoning for the Radio Amateur

2nd Edition

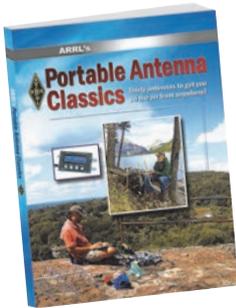
Item No. 1192 – \$49.95

Techniques and strategies that a ham and his or her attorney can use to obtain an antenna-structure permit. Keep peace with the neighbors and enjoy ham radio!



# 6 Antennas

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## ARRL's Portable Antenna Classics

Item No. 0345 – \$22.95

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A collection of helpful articles gathered from more than three decades of *QST*. Featuring easily constructed antenna systems that offer adequate performance, this book provides practical ideas and projects to get you on the air from anywhere:

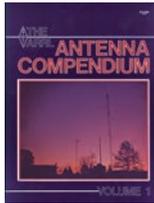
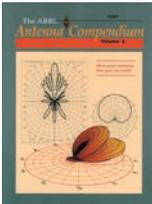
- **HF Antennas**  
Single and multiband designs for all bands from 80 through 10 meters.
- **VHF/UHF Antennas**  
Antennas for 6 meters, 2 meters and even 70 centimeters.
- **Masts and Other Supports**  
Ingenious ideas for getting your portable antenna off the ground and keeping it there.

## The ARRL Antenna Compendium Series

### Volume 1

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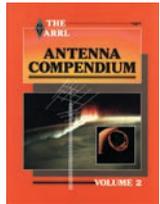
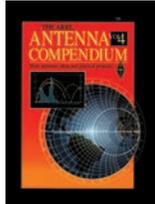
The premiere volume includes articles on a multiband portable, quads and loops, baluns, the Smith Chart, and more.



### Volume 2

Item No. 2545 – \$14

Covers a wide range of antenna types and related topics, including innovative verticals, an attic tri-bander, antenna modeling and propagation.



### Volume 3

Item No. 4017 – \$14

Quench your thirst for new antenna designs, from Allen's Log Periodic Loop Array to Zavrel's Triband Triangle. Discover a 12-meter quad, a disccone, modeling with MININEC and VHF/UHF ray tracing.

### Volume 4

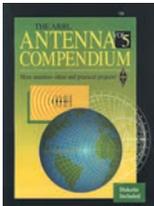
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38 articles covering a wide range of topics. Includes simple, practical antenna projects, and heavy-duty, theoretical treatments of complex arrays.

### Volume 5

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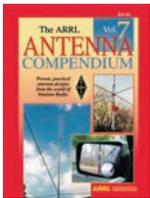
Enjoy excellent coverage of baluns, an HF beam from PVC, low-band Yagis, quads and verticals, curtain arrays, and more!



### Volume 6

Item No. 7431 – \$22.95

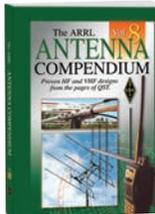
All new articles covering low-band antennas and operating, 10-meter designs, multiband antennas, propagation and terrain assessment. CD-ROM included with propagation prediction software!



### Volume 7

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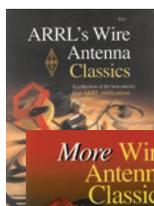
Proven, practical antenna designs from the world of Amateur Radio. This volume includes even more articles on low-band antennas and operating, and great designs for operating on the road—from cars, vans or motor homes.



### Volume 8

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60 articles from *QST* featuring practical ideas, tips and some of the best antenna projects. You'll find designs such as the Handy Yagi Antenna, Compact 40 Meter HF Loop, 20 and 40 Meter Verticals on "Autopilot" and much more.



## ARRL's Wire Antenna Classics and More Wire Antenna Classics

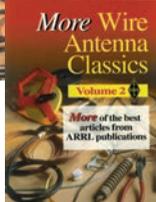
Volume 1

Item No. 7075 – \$14

Volume 2

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So many wire antenna designs have proven to be first class performers! Here are two volumes devoted to wire antennas, from the simple to the complex. Includes articles on dipoles, loops, rhombics, wire beams and receive antennas—and some time-proven classics!

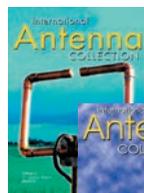
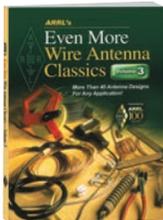


## ARRL's Even More Wire Antenna Classics

Volume 3

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ARRL Member Priced \$19.95

The best antenna projects and innovative designs from QST, from 2002 through 2013. Features more than 40 practical designs for a wide range of wire antennas. Discover new ways to experiment with wire antennas and why they are so rewarding to use.



## International Antenna Collection

Volume 1

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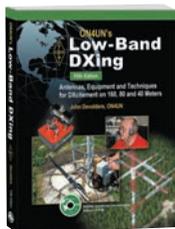
Volume 2

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Collections of antenna designs from around the world—from 136 kHz to 1.3 GHz, receiving and transmitting, fixed and mobile designs.



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## ON4UN's Low Band DXing

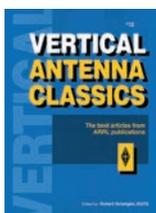
5th Edition

John Devoldere, ON4UN

Item No. 8560 – \$44.95

Includes antenna designs, operating guidelines, and an insider's scoop on low-band DXing. There's something for every active low-band operator, contester, and DX chaser! This edition features new insights and new design techniques for receiving antennas, dipole antennas and phased arrays. Fully searchable. CD-ROM included!

*Antennas, Equipment and Techniques for  
DXcitement on 160, 80 and 40 Meters*



## Vertical Antenna Classics

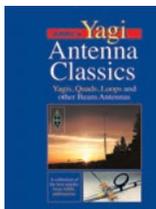
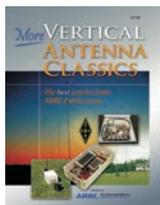
Item No. 5218 – \$12

Vertical antennas are everywhere on cell phones, broadcast towers, portable radios and vehicles. And for good reason! Here are the best articles from ARRL publications in one book. Vertical antenna theory and modeling, VHF and UHF, HF, directional arrays, radials, product suppliers and more.

## More Vertical Antenna Classics

Item No. 9795 – \$17.95

This second edition includes updated material on the art and science of the vertical antenna. Designs for a variety of operating preferences and bands, ground systems, portable antennas, phased vertical arrays, and more.



## ARRL's Yagi Antenna Classics

Yagis, Quads, Loops and other Beam Antennas

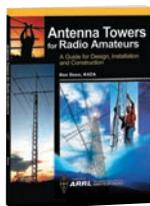
Item No. 8187 – \$17.95

Includes some of the best articles written about beam antennas, from ARRL publications. Will provide the reader with new and ambitious ideas, and computer-optimized designs for all-around best performance.

## Antenna Towers for Radio Amateurs

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With years of experience as a professional tower climber, Don Daso, K4ZA, leads you through designing and building your own antenna tower. You'll learn the skills, tools, climbing techniques, and safety measures necessary to improve your antenna system.



The digital edition is available in the Kindle format from Amazon.

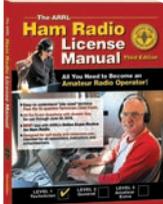
# 8 Licensing

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## Level 1 – Technician

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The most popular introduction into the world of Amateur Radio!



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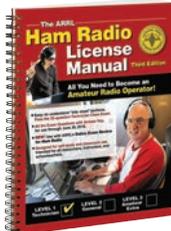
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- **NEW!** Use with ARRL's online *Exam Review for Ham Radio*.
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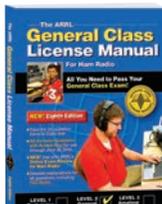
- Pass the 35-question test
- Includes the latest question pool with answer key, for use through June 30, 2018.
- Brief, clear explanations for all questions.



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### Upgrade from Technician

Enjoy the thrill of high-power communications on all HF bands!



### The ARRL General Class License Manual

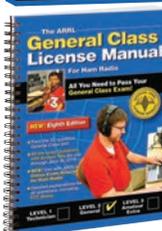
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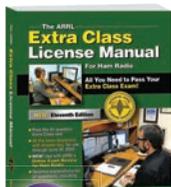
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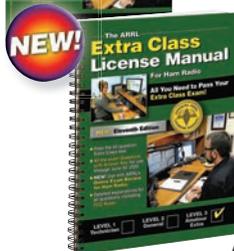
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Use ARRL's online *Exam Review for Ham Radio* in addition to ARRL license manuals to help prepare you for exam day. This web-based service uses the question pool to construct chapter-by-chapter reviews. Take practice exams with the same number and variety of questions you'll encounter on exam day.

ARRL License Manuals and Q&A's are available in the Kindle format from Amazon.

More Licensing References

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Flashcards are the fastest, most efficient way to learn! You get the actual test questions that will appear on the exam. Simply read the question, decide on an answer, and flip the card over for the correct answer.



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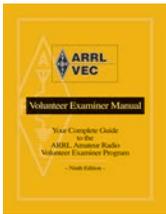
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ARRL/VEC Volunteer Examiner Manual

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A complete guide to the ARRL Amateur Radio Volunteer Examiner program. Whether you have ever thought about becoming a VE or you are a seasoned VE, this is everything ARRL VEs need to know.



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Item No. 0281 – \$19.95

Black polo shirt embroidered with the words "Volunteer Examiner" on the front left chest. Superior wrinkle and shrink resistant. Sizes, S-4XL.



VE ID Badge Lanyard

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Designed specifically for ARRL VEs, this lanyard is imprinted with the words "ARRL Volunteer Examiner" and "Amateur Radio". Great for identifying volunteers at VE exams!

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Carry your VE exam supplies in style! Black portfolio is imprinted with words "ARRL VEC Exams" and features a zipper closure on top.



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VE Patch Round

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VE Patch Rectangular

Item No. 0121 – \$2



VE Pin

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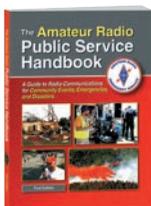
Symbolize your involvement as an ARRL Volunteer Examiner with this attractive black and gold pin. Wear it proudly! Size 1" round.



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# 10 Public Service

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## The Amateur Radio Public Service Handbook

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For all hams that volunteer their time and skill to serve their communities. It provides knowledge needed for communicating quickly and effectively during disasters, emergencies, and

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The digital edition is available in the Kindle format from Amazon.

## ARES® Field Resources Manual

Item No. 5439 – \$12.95

A quick trainer and field resource guide for the emergency communicator.

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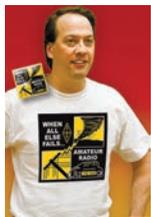


## ARES Magnetic Sign



Item No. 9413 – \$12.95

Perfect for use at public service and emergency communications support activities. Size 8 x 18 inches.



## “When All Else Fails...” Supplies

These items are a great reminder that Amateur Radio provides immediate high-quality communications that work every time, when all else fails.

WAEF T-shirts, pins, stickers and more are available at [www.arrl.org/shop](http://www.arrl.org/shop).



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This colorful pin will symbolize your involvement in the Amateur Radio Emergency Service (ARES). Wear it proudly! Size 1" round.

ARES decals, stickers, and patches are also available at [www.arrl.org/shop](http://www.arrl.org/shop).



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## Emergency Power for Radio Communications

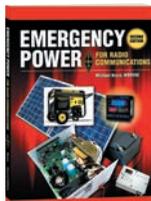
2nd Edition

Michael Bryce, WB8VGE

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**ARRL Member Price! 24.95**

Explore the various means of electric power generation, from charging batteries, to keeping the lights on. Covers the foundation of any communications installation — the power source.

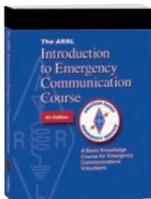


## The ARRL Introduction to Emergency Communication Course

4th Edition

Item No. 7303 – \$24.95

An introductory course designed for Amateur Radio volunteers who want to serve as part of an ARES® response team. This book is the course transcript for the EC-001 course and is an optional resource.



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Great for ARES volunteers, emergency and public service use. One size fits most. ANSI/ISEA 107-2004 Class 2 compliant.

- Neon Mesh Vest (M-3XL) Item No. 0128 – \$15.95
- Neon Solid Vest (M-3XL) Item No. 0136 – \$24.95
- Neon Hat Item No. 0099 – \$14.95



## Personal Emergency Communications

Item No. 0081 – \$14.95

Staying in touch post-disaster! Learn modern communications technologies and how to implement a realistic backup communication system.



## Solar Crank Flashlight

Item No. 0173 – \$40

Be prepared for any emergency with this powerful LED flashlight. Charge with the solar panel, hand crank, or AC/DC input.

## Eton Microlink FR160 Radio

Item No. 1150 – \$35

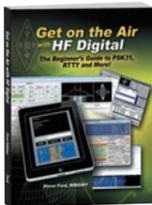
Self-powered AM/FM/NOAA weather radio with built-in LED flashlight, solar power and USB cell phone charge. Get one radio for your disaster supplies kit and another for your ham radio “go kit”.



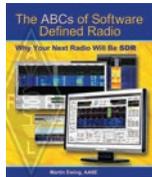
## Get on the Air with HF Digital

Steve Ford, WB8IMY  
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**ARRL Member Price! \$22.95**

A step-by-step guide that will get you started in the fascinating world of HF digital technologies. Written in an easy to understand style, learn how to set up and operate your own HF digital station. A fun and easy way for beginners to get on the air!



The digital edition is available in the Kindle format from Amazon.



## The ABCs of Software Defined Radio

Item No. 6320 – \$22.95  
**ARRL Member Price! \$19.95**

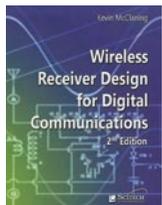
An introductory guide to SDR and Digital Signal Processing (DSP) technologies. Discover the basic principles of SDR, advantages to SDR technology, and ways to

utilize it in Amateur Radio operation.

## RTTY/PSK31 for Radio Amateurs

2nd Edition  
 Item No. 5003 – \$15.95

Fully updated, this edition provides everything you need to know to get the most out of this fascinating area of Amateur Radio. **CD-ROM included.** 48 pages.



## Wireless Receiver Design for Digital Communications

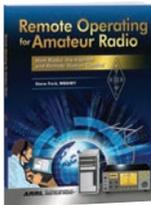
2nd Edition  
 Item No. 0080 – \$139

A reference for electrical engineers and radio communication experimenters. Includes proven concepts, illustrations, and design examples that help clarify each component within the system design.

## Digital Communication Systems Using SystemVue

Item No. 1084 – \$44.95

An essential guide for anyone wishing to understand digital communication systems through simulations using SystemVue.



## Remote Operating for Amateur Radio

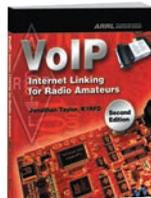
Steve Ford, WB8IMY  
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*Experience the Excitement of Digital Communications!*

# National Parks ON THE AIR

# 2016

**On August 25, 2016, the  
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Ham Radio operators will be transmitting from national parks, monuments, historic sites, and more all year long, to celebrate the **National Park Service Centennial**. Be a part of the science, skill, and service that ham radio offers everyone while you're visiting national parks this year!

Show your support for ARRL and the National Parks with official **National Parks on the Air (NPOTA)** merchandise. These items are a great way to recognize your involvement in this yearlong operating event. All items are *now shipping*.



## 2016 National Parks ON THE AIR

[www.arrl.org/NPOTA](http://www.arrl.org/NPOTA)

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Adult shirts available in dark green long sleeve crew and stonewash green tee only. Youth shirts available in dark green short sleeve tee only.

For more information on the event, visit [www.arrl.org/NPOTA](http://www.arrl.org/NPOTA)

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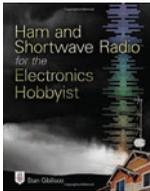
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## Arduino Projects for Amateur Radio

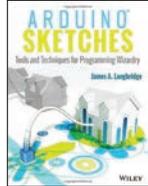
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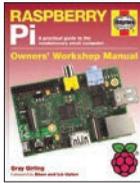
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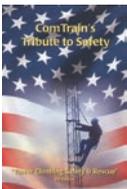
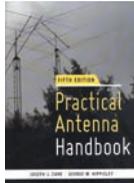


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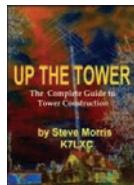
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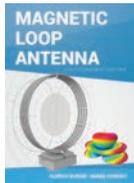
The complete guide to tower construction. Over 220 pages of facts, techniques, hardware and lots of answers to your tower construction questions.



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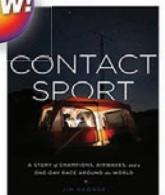
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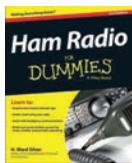
J.K. George, N3BB

A story of champions, airwaves, and a one-day race around the world. It guides you through the exciting world of amateur radio competition and the intriguing characters of the 2014 World Radiosport Team Championship.



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### Ham Radio for Dummies



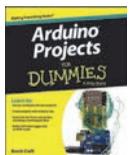
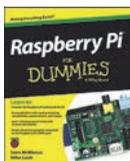
Ward Silver, NØAX  
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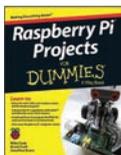
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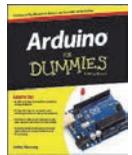
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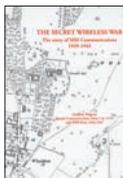
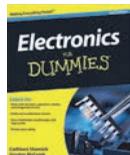


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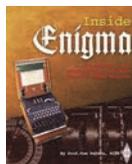
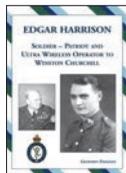
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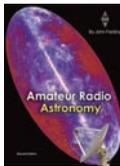
Explore the excitement of the "magic band" with this complete guide to 6 meters, as well as 4 meters. With new countries gaining temporary or permanent access on a regular basis, you'll discover both bands are exciting and fun! 288 pages.

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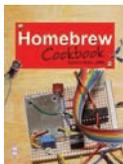
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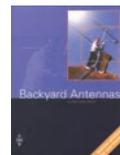
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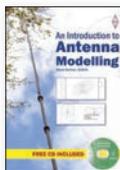
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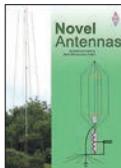
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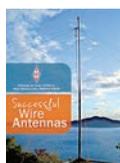
Radio Amateurs experiment with antennas to get the best performance they can. Few have ever considered anything beyond basic antenna designs - this book tries to set that right with a myriad of 'novel' antenna designs from around the world. 192 pages.



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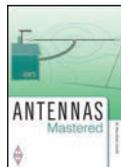
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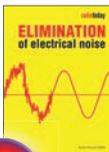
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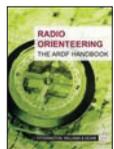
All the information you need to succeed on 136 & 500 kHz. Advice for amateurs just starting out, and reference information for those who already have some experience in LF. 192 pages.

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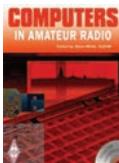
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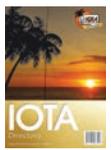
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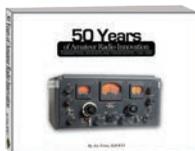


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Joe Veras, K9OCO

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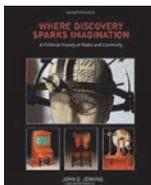
Item No. 9898 – \$22.95

A memoir by Dave Bell, W6AQ, of his life in the fascinating hobby of Amateur Radio. Written in a fun, entertaining style readers will be certain to enjoy.

## Where Discover Sparks Imagination

Item No. 1660 – \$34.95

Examine the early history of radio and electricity, with a collection of over 600 photographs. Anyone who appreciates the amazing workmanship and artistry of old technology will love this book.



## A History of QST – Volume 2: Advertising 1915-2013

Joe Veras, K9OCO

Item No. 0048 – \$34.95  
ARRL Member Price! \$29.95

Trace the history of receivers, transmitters, antennas, and other station gear through this collection of QST pages and advertising. It's a nostalgic journey, as told through the creative marketing, advertising and photography of yesteryear.



## 100 Years of QST Special Reissue

Item No. 0369 – \$9.95

Celebrate 100 years of ARRL's membership journal, with a commemorative reissue of the first QST—the December 1915 issue.



## The ARRL Film Collection DVD

Dave Bell, W6AQ

Item No. 3725 – \$15.95

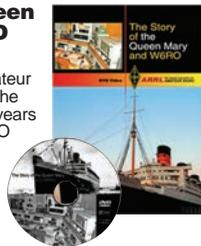
Take a journey back as ARRL presents a series of videos beginning in the late 1950s. From the original "Hams Wide Word" to "Amateur Radio Today", you will watch the evolution of Amateur Radio unfold before your eyes. 130 minutes.



## The Story of the Queen Mary and W6RO DVD

Item No. 1344 – Only \$15.95

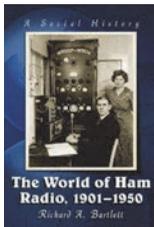
A story about W6RO, the Amateur Radio station located aboard the historic Queen Mary. With 35 years of continuous operation, W6RO has presented a positive image to millions of visitors. 28 minutes.



## The World of Ham Radio: 1901 – 1950

Item No. 0257 – Only \$55

Explore the history of ham radio operators, their social history and their many contributions to the technological development of worldwide communications. This book highlights ham radio in major events of the half century, exploration and aviation "firsts".



## National Parks on the Air Supplies

Ham Radio operators will be transmitting from national parks, monuments, and historic sites throughout 2016, to celebrate the National Parks Service Centennial.

Show your support for this ARRL operating event with official merchandise. Shirts, hats, mugs, pin, patches, stickers and more are available at [www.arrrl.org/shop](http://www.arrrl.org/shop).



### ARRL Amateur Radio Hat

- Black Hat – Item No. 5004 – \$10.95
- Khaki Hat – Item No. 4094 – \$10.95

Medium profile cap with sandwich visor feature contrasting undervisor, mesh lining and adjustable cloth strap closure. Available in black and khaki. One size fits most.



### ARRL Polo Shirt

- Royal Blue Polo – \$22.95  
Men – Item No. 3108 (S-4XL)  
Ladies – Item No. 3108W (S-3XL)
- Red Polo – \$22.95  
Men – Item No. 7319 (S-4XL)  
Ladies – Item No. 7319W (S-3XL)

Designed for ARRL Members, this sport polo features the ARRL diamond logo with the words “ARRL, Amateur Radio” on the front left chest. Available in royal blue and red.



### ARRL Fleece Jacket

- Riverblue – Item No. 3066 – \$39.95

### ARRL Sport Jacket

- Nautical Blue – Item No. 7351 – \$39.95

These jackets are embroidered with the words “ARRL, Amateur Radio” on the front left chest. Sizes S-3XL.



### HAM Hat

- Item No. 0014 – \$12.95

Black hat embroidered with the HAM logo and the ARRL web address. Adjustable Velcro strap closure. One size fits most.

## ARES Apparel

### ARES Polo Shirt

- Item No. 0006 – \$22.95

Designed for public service and ARES volunteers, this sport polo is embroidered with the Amateur Radio Emergency Service® (ARES) logo on front left chest. A perfect way to symbolize your commitment to Amateur Radio and the Emergency Service program. Size, S–4XL. Color, Navy.



### ARES T-Shirt

- Item No. 1331 – \$12.95

ARES® t-shirt, featuring the logo on the front left chest and “Radio Communications” on the back. Perfect for public service events. Size, S–4XL. Color, Navy.



### ARES Paracord Bracelet

- Item No. 1003 – \$4.95

Hand-designed and custom-crafted out of parachute cord, this blue and red paracord bracelet features the ARES logo on a black clasp. Useful in the field or in an emergency as it unravels. Small 8.5”, Large 9.25”.



# 20 Station Resources

[www.arrl.org/shop](http://www.arrl.org/shop) ■ 1-888-277-5289

## Pocket Ref



Thomas J. Glover

Item No. 1148 – \$12.95

All the information you need in one essential reference book. The cover is embossed with ARRL's logo—making this a particularly special edition of this popular guide.

## RFI Pocket Guide

Item No. 5008 – \$20.00

Pocket reference offers essential data on radio frequency interference for advanced ham radio operators, wireless engineers and technicians.



## Amateur Radio Station Log Book

Item No. 1250 – \$7.95

52 log pages with room for 25 contacts per page (1,300 total log entries). Spiral bound (8.5 x 11")



## Minilog Book

Item No. 7539 – \$4.95

Wire-bound (6.25 x 4")



## Log Sheets

Item No. 1265 – \$4

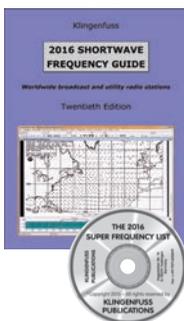
## Klingenfuss Publications

2016 Shortwave Frequency Guide

20th Edition

Item No. 5006 – \$59.95

The latest schedules of worldwide broadcast and utility radio stations.



2016 Super Frequency List CD-ROM

Item No. 6017 – \$44.95

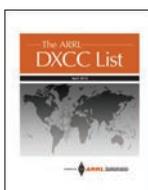
More than 40,000 entries cover both broadcast and utility stations. Hundreds of fascinating new digital data decoder screenshots! Requires Windows.



## All Weather Minilog

Item No. 1374 – Only \$8.95

Waterproof logbook made of synthetic paper. Ideal for harsh field conditions, maritime use, mobile use, as well as regular ham shack use. 50 pages. Size: 3" x 5".



## The ARRL DXCC List

April 2012 Edition

Item No. 3862 – \$5.95

The official source of DXCC awards information. Record the DXCC Entities you've worked and QSLed. A "must have" for every DXer!

## Radiograms For Traffic Handlers

Item No. 1310 – \$2

Message Delivery Cards (package of 20)

Item No. 1320 – \$2

Message Pad with 70 sheets



## Radio Setup Guides

Consider step-by-step guides that simplify setup and operation. Mini-manuals and pocket reference cards available are available for select Kenwood, Icom, Yaesu, Baofeng and Wouxun models. Order Nifty! Ham Radio Guides online at [www.arrl.org/shop](http://www.arrl.org/shop).



## HT Radio Desk Stand

Item No. 7325 – \$34.95

Convenient desk-top holder for all hand-held radios. Holds your radio upright and steady at a comfortable viewing angle. Use to hold your Android phone, iPhone, iPod and more.

## ARRL All Weather Pen

Item No. 6108 – Only \$13.95

All weather click pen writes on wet paper, upside down and in temperatures from -30F to 250F. Flat black metal barrel, ink black. Size: 5 1/4" long.



## ARES All Weather Notebook

Item No. 5580 – Only \$6.95

Pocket notebook conveniently sized to take with you—anywhere, anytime, in any weather! Great for public service volunteers, it features the ARES logo on a Polydura cover. 100 waterproof writing pages (50 sheets). Size: 3" x 5".



## 2015 ARRL Periodicals on DVD

Fully-searchable collections of popular ARRL journals, *QST*, *QEX*, and *NCJ*. Every word and photo published throughout the year is included!

**SEARCH** the full text of every article by entering titles, call signs, names—almost any word.

**SEE** every word, photo (including color images), drawing and table in technical and general-interest features, columns and product reviews, plus all advertisements.

**PRINT** what you see, or copy it into other applications.

Item No. 0505 – \$24.95

System Requirements: Microsoft Windows™, 1999-2014 editions support Windows and Macintosh systems, using the industry standard Adobe® Acrobat® Reader™ software. The Acrobat Reader is a free download at [www.adobe.com](http://www.adobe.com) (included on CD through 2007).



## Additional sets available on CD.

- 2014 Edition, Item No. 0325 – \$24.95
- 2013 Edition, Item No. 0093 – \$24.95
- 2012 Edition, Item No. 3152 – \$24.95
- 2011 Edition, Item No. 5651 – \$24.95
- 2010 Edition, Item No. 2001 – \$24.95
- 2009 Edition, Item No. 1486 – \$24.95
- 2008 Edition, Item No. 9406 – \$24.95
- 2007 Edition, Item No. 1204 – \$19.95
- 2005 Edition, Item No. 9574 – \$19.95
- 2003 Edition, Item No. 9124 – \$19.95
- 2002 Edition, Item No. 8802 – \$19.95
- 2001 Edition, Item No. 8632 – \$19.95
- 1999 Edition, Item No. 7881 – \$19.95
- 1997 Edition, Item No. 6729 – \$19.95

## ARRL at 100: A Century of Ham Radio DVD

Item No. 0109 – \$10.95

ARRL Membership DVD promoting the art, science and enjoyment of Amateur Radio for 100 years. By being an ARRL member you not only reflect the commitment and enthusiasm of American hams, but also provide leadership as the voice of Amateur Radio in the USA.



## The DIY Magic of Amateur Radio DVD

Item No. 6047 – \$10.95

Directed toward the "Do It Yourself" movement, this video features innovative and fun ways hams use radio technology, 8 minutes 32 seconds.



## The Story of the Enigma: History, Technology and Deciphering

Item No. 1296 – \$15.00

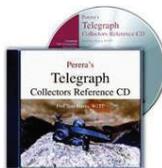
The complete story of the Enigma cipher machine, the primary device used by the German Military during WWII. It begins with the history of codes and progresses through the development of code machines, the Enigma, and other cipher machines.



## Perera's Telegraph Collectors Reference CD-ROM

Item No. 1282 – \$15.00

A complete source of information for those interested in telegraph keys, from beginner to avid collector. It explains the history and technology of telegraph keys and gives their current values. Over 7,000 photographs, and an array of descriptions, prices, books, and more.



## Radio Amateur Callbook CD-ROM



Summer 2016 Edition  
Item No. 0506 – \$49.95

Feature-packed! More than 1,600,000 licensed radio amateurs.



## Nova for Windows

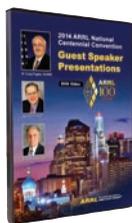
Item No. 8724 – \$59.95

An innovative, real-time satellite tracking program.

## ARRL National Centennial Convention Presentations DVD

Item No. 1241 – \$12.95

The ARRL National Centennial Convention was held July 17-19, 2014 in Hartford, CT—a once-in-a-lifetime celebration. This DVD includes convention presentations from three special guest speakers: Rick Roderick, K5UR, W. Craig Fugate, KK4INZ and Joe Taylor, K1JT



## Buckmaster's HamCall™ CD-ROM

Item No. 8991 – \$49.95

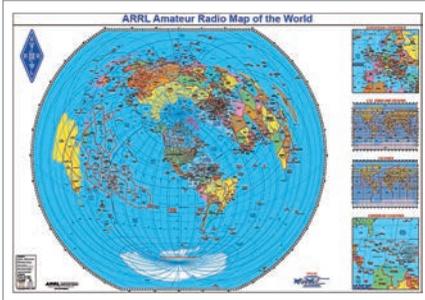
Look up hams by call, name, street address, city, state, postal code, county, and country. Over 2,000,000 worldwide call sign listings.



For more CD's & DVD's visit  
[www.arrl.org/shop](http://www.arrl.org/shop)

# 22 Maps

www.arrl.org/shop ■ 1-888-277-5289



## ARRL Map of the World Azimuthal

Item No. 7717 – \$15

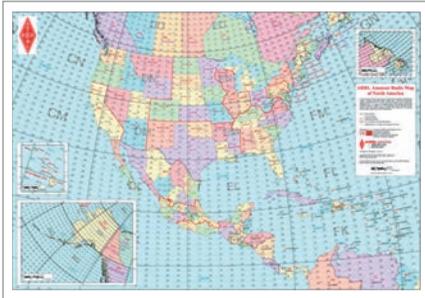
27 x 39 inches.



## ARRL Map of the World Robinson

Item No. 8804 – \$15

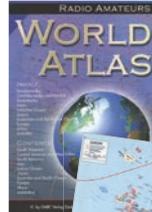
26 x 34.5 inches.



## ARRL Map of North America

Item No. 8977 – \$15

27 x 39 inches.

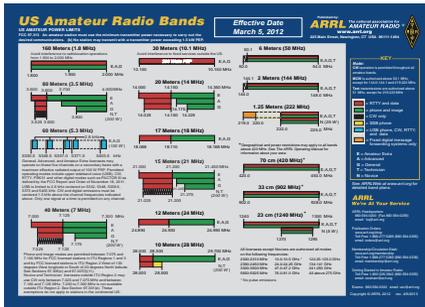


## Radio Amateurs World Atlas

Item No. 5226 – \$12.95

Booklet of full-color maps, call-sign prefixes and more.

- ARRL World Grid Locator Atlas  
Item No. 2944 – \$5.95
- Grid Locator (US Grid Squares)  
Item No. 1290 – \$1
- Polar Map (for OSCAR)  
Item No. 1300 – \$1



## US Amateur Radio Bands Chart

Item No. 1126 – \$3

ARRL Worked All States (WAS) map on backside. 11x17 inches.



ARRL The national association for AMATEUR RADIO

## Ham Oval Stickers

(set of 25)  
Item No. 0169 – \$30

These stickers are a great way to get the word out! Ideal for the bumper or rear window of your car, van or RV (vinyl with adhesive on the back).



**I'm a Member... Stickers**  
(roll of 100)

Item No. 1037 – \$5.00  
1 3/8" diameter.

## ARRL Magnets

(set of 25)  
Item No. 0124 – \$12  
Full colored magnets imprinted with "Advancing the Art, Science and Enjoyment of Amateur Radio" and the ARRL five pillars. The perfect give-away for all ham radio events! Size 3.5" x 2".



## Amateur Radio Bookmark and Ruler

(set of 25)  
Item No. 1063 – \$8  
A bookmark on one side and ruler on the other. A great recruitment tool for scouts and young hams.

## ARRL Ribbons

- (set of 25)
- ARRL Member Ribbons  
Item No. 1123 – \$15
  - ARRL Life Member Ribbons  
Item No. 0280 – \$15

ARRL Members and ARRL Life Members, show off your support with an attractive ARRL ribbon!



## Wouff Hong Pins

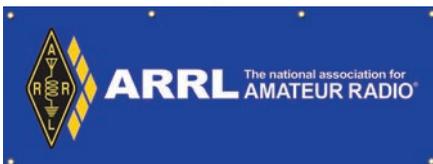
(set of 25)  
Item No. 0060 – \$40

Symbolize your participation in the traditional ham ritual with these antique copper plated pins. Perfect for Clubs!



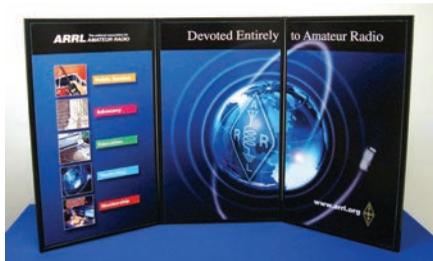
## ARRL Pens

(set of 25)  
Item No. 0170 – \$15  
Red push pen imprinted with "ARRL the national association for AMATEUR RADIO". The perfect give-away for all ham radio events!



## ARRL Banner

Item No. 1302 – \$50  
Nylon fabric banner imprinted with "ARRL The national association for AMATEUR RADIO". Size 3' x 8'.



## ARRL Tabletop Display

Item No. 0185 – \$220  
Three panel "Dedicated Entirely to Amateur Radio" display, featuring the ARRL five pillars. A great addition to any trade show or exhibit! 54" x 30" x 3/4".

## ARRL Banner Stand Display

Item No. 0310 – \$150  
Vibrant banner imprinted with "Advancing the Art, Science and Enjoyment of Amateur Radio" and the ARRL five pillars. Includes carrying case. A striking visual for all your ham radio events! Size 29.50" x 69".



*Advocacy  
Membership  
Public Service  
Education  
Technology*

## Handouts Available in Packs of 25

- What is Ham Radio flyer
- DIY Magic of Amateur Radio flyer
- Serving Your Community flyer
- Take the Next Step flyer
- Ham Radio Youth flyer
- ARRL Membership brochure
- Scouting and Amateur Radio leaflet
- Amateur Radio Emergency Service leaflet
- Wireless Excitement Amateur Radio leaflet

# 24 ARRL Product Listing

www.arrl.org/shop ■ 1-888-277-5289

## License Study Materials

### Technician Class

Exam: 35-question Technician test (Element 2)

<b>The ARRL Ham Radio License Manual</b> , 3rd Edition. Softcover Book, Item No. 0222.....	\$29.95
<b>Spiral Bound</b> , Item No. 0475.....	\$32.95
<b>ARRL's Tech Q &amp; A</b> , 8th Edition, Item No. 0178.....	\$17.95

### General Class (upgrade from Technician)

Exam: 35-question General test (Element 3)

<b>The ARRL General Class License Manual</b> , 8th Edition. Softcover Book, Item No. 0307.....	\$29.95
<b>Spiral Bound</b> , Item No. 1904.....	\$32.95
<b>ARRL's General Q &amp; A</b> , 5th Edition, Item No. 0338.....	\$17.95

### Extra Class (upgrade from General)

Exam: 50-question Extra test (Element 4)

<b>The ARRL Extra Class License Manual</b> , 11th Edition. Softcover Book, Item No. 0451.....	\$29.95
<b>Spiral Bound</b> , Item No. 0550.....	\$32.95
<b>ARRL's Extra Q &amp; A</b> , 4th Edition, Item No. 4494.....	\$17.95

## Operating and Reference

**The ARRL Operating Manual for Radio Amateurs**, 10th Edition.  
Item No. 5965..... **ARRL Member Price \$29.95**..... ~~\$34.95~~

**The ARRL Repeater Directory\***, 2016/2017 Edition.  
Pocket-sized Edition.  
Item No. 0536..... **ARRL Member Price \$10.95**..... ~~\$12.95~~

**Desktop Edition**.  
Item No. 0543..... **ARRL Member Price \$15.95**..... ~~\$17.95~~

**Your First Amateur Radio HF Station**.  
Item No. 0079..... **ARRL Member Price \$19.95**..... ~~\$22.95~~

**Radios to Go!**  
Item No. 3077..... **ARRL Member Price \$15.95**..... ~~\$17.95~~

**The ARRL DXCC List**, April 2012 Edition, Item No. 3862..... \$5.95

**Oscilloscopes for Radio Amateurs**.  
Item No. 0976..... **ARRL Member Price \$19.95**..... ~~\$22.95~~

**The Radio Amateur's Workshop**.  
Item No. 0482..... **ARRL Member Price \$19.95**..... ~~\$22.95~~

**Hints & Kinks for the Radio Amateur**, 18th Edition.  
Item No. 5200..... **ARRL Member Price \$19.95**..... ~~\$22.95~~

**FCC Rules and Regulations**, 3rd Edition, Item No. 1173..... \$5.95

**ARRL Software Library for Hams**, CD-ROM, Ver 4.0  
Item No. 4364..... **ARRL Member Price \$19.95**..... ~~\$22.95~~

**ARRL Software Library for Hams Download**.  
Item No. 4364D..... \$19.95

**Amateur Radio on the Move**, Item No. 9450..... \$19.95

**Propagation and Radio Science**.  
Item No. 0277..... **ARRL Member Price \$24.95**..... ~~\$27.95~~

**Radio Science for the Radio Amateur**.  
Item No. 3381..... **ARRL Member Price \$24.95**..... ~~\$27.95~~

**Storm Spotting and Amateur Radio**, Item No. 0908..... \$22.95

**Morse Code Operating for Amateur Radio**.  
Item No. 0004..... **ARRL Member Price \$15.95**..... ~~\$17.95~~

**Amateur Radio Station Log Book**, Item No. 1250..... \$7.95

**Amateur Radio Station Minilog**, Item No. 7539..... \$4.95

**ARRL VEC Volunteer Examiner Manual**, Item No. 1328..... \$10

## Maps

**ARRL Map of North America**, 27" x 39", Item No. 8977..... \$15

**ARRL Map of the World (Azimuthal)**, 27" x 39", Item No. 7717..... \$15

**ARRL Map of the World (Robinson)**, 26" x 34.5", Item No. 8804..... \$15

**ARRL Worked All States (WAS) Map**, 11" x 17", Item No. 1126..... \$3

**The Radio Amateur's World Atlas**, Item No. 5226..... \$12.95

## Antennas and Transmission Lines

**The ARRL Antenna Book**, 23rd Edition.  
Softcover Book with CD-ROM, Item No. 0444..... \$49.95

**Hardcover**, Book with CD-ROM, Item No. 0390..... \$59.95

**Basic Antennas**, Item No. 9994..... \$29.95

**The ARRL Antenna Designer's Notebook**, Item No. 1479..... \$34.95

**Antenna Modeling for Beginners**.  
Item No. 3961..... **ARRL Member Price \$34.95**..... ~~\$39.95~~

**Short Antennas for Small 160 Meter Radio**.  
Item No. 5798..... **ARRL Member Price \$19.95**..... ~~\$22.95~~

**Antenna Physics: An Introduction**, Item No. 0499..... \$29.95

**ON4UN's Low-Band DXing**, 5th Edition, Item No. 8560..... \$44.95

**ARRL's Small Antennas for Small Spaces**, 2nd Edition.  
Item No. 0512..... **ARRL Member Price \$19.95**..... ~~\$22.95~~

**Antenna Towers for Radio Amateurs**, Item No. 0946..... \$34.95

**The ARRL Guide to Antenna Tuners**, Item No. 0984..... \$22.95

**Understanding Your Antenna Analyzer**.  
Item No. 2889..... **ARRL Member Price \$22.95**..... ~~\$25.95~~

**The Care and Feeding of Transmission Lines**.  
Item No. 4784..... **ARRL Member Price \$24.95**..... ~~\$27.95~~

**ARRL's Yagi Antenna Classics**, Item No. 8187..... \$17.95

**ARRL's Portable Antenna Classics**.  
Item No. 0345..... **ARRL Member Price \$19.95**..... ~~\$22.95~~

**Simple and Fun Antennas for Hams**, Item No. 8624..... \$22.95

**ARRL's Wire Antenna Classics**, Item No. 7075..... \$14

**More Wire Antenna Classics**, Volume 2, Item No. 7709..... \$17.95

**Even More Wire Antenna Classics**, Volume 3.  
Item No. 0239..... **ARRL Member Price \$19.95**..... ~~\$22.95~~

**More Vertical Antenna Classics**, Item No. 9795..... \$17.95

**Vertical Antenna Classics**, Item No. 5218..... \$12

**ARRL Antenna Compendium**, Volume 1, Item No. 0194..... \$20

<b>ARRL Antenna Compendium</b> , Volume 2, Item No. 2545.....	\$14
<b>ARRL Antenna Compendium</b> , Volume 3, Item No. 4017.....	\$14
<b>ARRL Antenna Compendium</b> , Volume 4, Item No. 4912.....	\$20
<b>ARRL Antenna Compendium</b> , Volume 5, Item No. 5625.....	\$20
<b>ARRL Antenna Compendium</b> , Volume 6, Item No. 7431.....	\$22.95
<b>ARRL Antenna Compendium</b> , Volume 7, Item No. 8608.....	\$24.95
<b>ARRL Antenna Compendium</b> , Volume 8, Item No. 0391.....	\$24.95

## QST on CD-ROM and DVD

<b>2015 ARRL Periodicals on DVD</b> , Item No. 0505.....	\$24.95
<b>2014 ARRL Periodicals on DVD</b> , Item No. 0325.....	\$24.95
<b>2013 Periodicals on DVD</b> , Item No. 0093.....	\$24.95
<b>2012 Periodicals on DVD</b> , Item No. 3152.....	\$24.95
<b>2011 Periodicals on CD-ROM</b> , Item No. 5651.....	\$24.95
<b>2010 Periodicals on CD-ROM</b> , Item No. 2001.....	\$24.95

## Practical Circuits and Design

### The 2016 ARRL Handbook.

**Softcover**, Book with CD-ROM, Item No. 0413..... \$49.95

**Hardcover**, Book with CD-ROM, Item No. 0420..... \$59.95

**Understanding Basic Electronics**, 2nd Edition.  
Item No. 0823..... **ARRL Member Price \$29.95**..... ~~\$34.95~~

**Basic Radio**, Item No. 9558..... **ARRL Member Price \$29.95**..... ~~\$34.95~~

**ARRL's Hands-On Radio Experiments**, Item No. 1255..... \$19.95

**ARRL's Hands-On Radio Experiments**, Volume 2.  
Item No. 3411..... **ARRL Member Price \$22.95**..... ~~\$25.95~~

**Hands-On Radio Parts Kit**, Item No. 1255K..... \$89.95

**The ARRL RFI Book**, 3rd Edition, Item No. 0915..... \$29.95

**RF Exposure and You**, Item No. 6621..... \$22.95

**Experimental Methods in RF Design**, Revised 1st Edition.  
Item No. 9239..... \$49.95

**Arduino for Ham Radio**.  
Item No. 0161..... **ARRL Member Price \$29.95**..... ~~\$34.95~~

**Ham Radio for Arduino and PICAXE**.  
Item No. 3244..... **ARRL Member Price \$29.95**..... ~~\$34.95~~

**ARRL PIC Programming Kit**, Item No. 0030..... \$149.95

**L/C/F and Single-Layer Coil Winding Calculator**.  
Item No. 9123..... \$12.95

**ARRL's Low Power Communication**, 4th Edition.  
Item No. 5828..... **ARRL Member Price \$24.95**..... ~~\$27.95~~

**ARRL's Low Power Communication with CW Kit**.  
Item No. 5828K..... \$105.95

**More QRP Power**, Item No. 9655..... \$19.95

**Circuit Analysis and Analysis**.  
Item No. 0055..... **ARRL Member Price \$24.95**..... ~~\$27.95~~

**Transceiver Performance Testing**.  
Item No. 0086..... **ARRL Member Price \$19.95**..... ~~\$22.95~~

**Digital Communications**

**Get on the Air with HF Digital**.  
Item No. 6016..... **ARRL Member Price \$22.95**..... ~~\$25.95~~

**Remote Operating for Amateur Radio**, Item No. 0922..... \$22.95

**The ABCs of Software Defined Radio**.  
Item No. 6320..... **ARRL Member Price \$19.95**..... ~~\$22.95~~

**VoIP: Internet Linking for Radio Amateurs**, 2nd Edition.  
Item No. 1431..... \$21.95

**Work the World with JT65 and JT9**.  
Item No. 0457..... **ARRL Member Price \$15.95**..... ~~\$17.95~~

**High Speed Multimedia for Amateur Radio**.  
Item No. 0529..... **ARRL Member Price \$24.95**..... ~~\$27.95~~

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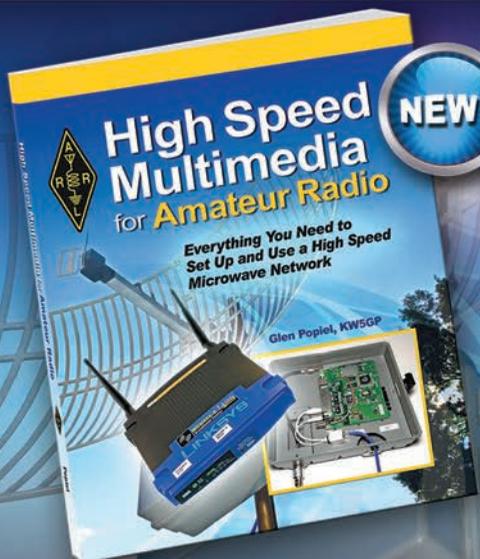
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