Our mission: To advance the art, science, and enjoyment of Amateur Radio.

In This Issue

April 2016  Volume 100  Number 4

Technical

PICAXE-Based Timer 30
Darrell Davis, KT4WX
This simple programmable timer circuit improves on the classic timer design.

Can Home Solar Power and Ham Radio Coexist? 33
Tony Brock-Fisher, K1KP
It's possible, with minimal interference from the solar power system, provided you make some modifications.

The Propkeyer IV — A Multimode CW Keyer 38
Larry Coyle, K1QW
Give your iambic paddle a chance to show what it can do.

Ground Influence on Antenna Patterns 41
Kazimierz “Kai” Siwiak, KE4PT
The so-called “takeoff angle” is not a property of the antenna, but a result of a ground reflection.

Antenna Modeling — What's it All About? 43
Joel R. Hallas, W1ZR
How does antenna modeling work, and can your PC really predict what your antenna will do?

Done in One: CW Tone Detector 46
Paul Danzer, N1II
You don’t need “perfect pitch” to keep your CW tone on frequency.

Product Review 49
Mark Wilson, K1RO
HobbyPCB RS-UV3 radio shield; RM Italy HLA 305V 160 – 10 meter amplifier; Siglent SDS1102X oscilloscope; Seek Compact thermal imager.

News and Features

It Seems to Us 9
David Sumner, K1ZZ
A Passion for Amateur Radio

Inside HQ 13
Harold Kramer, WJ1B
The ARRL Strategic Plan

The Radios that Started and Ended World War II in the Pacific 70
Hiroki Kato, AH6CY
An examination of the radios used during the attack on Pearl Harbor and the bombing of Hiroshima.

National Parks on the Air — April 2016 73
Sean Kukizo, K9X
January stats, a new NPOTA unit, HamCation, and more!

Artful Antennas 74
Sheila Clarke, KH4WKY
Created for a club’s “Crazy Antenna Day;” these antennas give hams something to look at, as well as listen with.

Barns Ness Adventure 76
Lon Severe, WA6AEE/MM
A ham with ties to Scotland finally experiences “being the DX” by activating a Scottish lighthouse with his UK club.

The ARRL Ham Radio Equipment Insurance Plan 78
Jen Glifort
This policy covers radios and related equipment, with a lower deductible than most homeowners policies.

Snapshots from HamCation 79
Steve Ford, WB8IMY
Thousands of radio amateurs journeyed to Florida for the 2016 Orlando HamCation and ARRL National Convention. If you couldn’t make it, here is a glimpse of what you missed!

Happenings 81
Rick Lindquist, WW1ME
H.R. 1301 makes progress in the House; new ARRL Strategic Plan adopted; a new Memorandum of Understanding between ARRL and the American Red Cross; more.
Our Cover
An aerial view of Tony Brock-Fisher’s, K1KP, antennas towering over the solar panels on his roof. In this issue, you can find a detailed account of how Tony significantly reduced interference from his solar power system. [Tony Brock-Fisher, K1KP, photo]