

73 ARTICLE DIRECTORY 1970

This master article directory lists, by subject, all the major articles featured in 73 Magazine during 1970. Entries are first by subject (alphabetically), then by article title (chronologically). A brief abstract of each article appears once, though the article itself might be listed under more than one category. When no abstract appears and a subject heading is shown in parentheses between the author's call and the date of publication, refer to the parenthesized subject heading to read the abstract.

Antennas

AAB-AM-FM Modulation System
W2BSP Jan
 Tongue-in-cheek technical article about a system the author actually uses. He calls it "frequency aperture" modulation. The most interesting part of the article is the author's clever adaptation of a 55 gallon drum for use as a 10 meter cavity.

Base-Tuned Center-Loaded Antenna
W2EEY Jan
 An antenna can be center-loaded without having the reactive element physically present at the center of the antenna. Transmission line transfer of the reactive element is the key.

Variable-Impedance Mobile Mount
W1EMV Feb
 A rotary switch with a few capacitors can effectively change the matching impedance of a mobile antenna.

Quick-Stop and Reverse Antenna Rotator Circuit
PY2AUC Feb
 A simple rotor modification to make the antenna stop when you want it to. Also lets you suddenly reverse the antenna's travel without fearing damage to anything too high to reach comfortably.

The Glop Will Get You if You Don't Watch Out!
W2OLU Feb
 The effects of glop (dirt and crud) on antenna connections. Contains suggestions for minimizing the likelihood of Glop build-up.

18-in. Dipole for 15 Meters
K9LGH Feb
 Supersmall antenna for cliffdwellers; incorporates two printed-circuit radiating elements.

Lossy Transmission Lines
KH6IJ Feb
 A description of the effects of an-antenna transmission line's losses, and a discussion as to the insignificance of swr measurements under conditions of a lossy line.

How to Megger Your Antenna
W2EEY Apr
 A simple, proved method for periodically checking performance of a transmission line and antenna system. Can uncover faults not indicated by swr measurements.

7/8-Wave Mobile Antenna for 2 meter FM
W2EUP Apr
 An expert describes an antenna of original design, and compares it objectively with other antennas of commercial manufacture. In the Buffalo area, this 7/8-wave antenna has held the FM mobile gain record since 1967.

5/8 Wavelength Verticals
WA0NGV May
 Theory and information on 5/8-wave verticals of various descriptions. Includes radiation-angle data, construction information, and necessary equations for original design.

The Little Wonder: Mark II		Turning the AN/GRC-9 Into A Novice Rig		Encoders for Subaudible, Tone-Burst or Whistle-On Use	
W5ZBC Another cliffdweller antenna. This one can be fashioned from an old pole lamp.	Jun	W6JTT A simple conversion puts this surplus unit on 80 and 40 meters. Converted, the rig will run about 15W. Includes a detailed power supply circuit. Modulatorless, the transmitter is intended for CW operation.	Mar	W6CZL An extremely simple and stable transistor oscillator circuit, with adaptations for the various modes of repeater control. Includes PC board layout and construction plans.	Feb
The 663 Beam		What Will Become of CW?		Frequency Synthesis: The Modern Way to Control Frequency	
ZL2ASJ Six elements on 10 and 15, and 3 elements on 20m. Construction plans were left out, but were printed in the Aug issue (p. 83).	Jun	W5TOM A dissertation on the state of ham radio today, and suggestions for possible improvement. Makes a case — of sorts — for CW, and offers predictions for CW's role in amateur radio's future.	May	W2EUP A complete and comprehensive article covering theory and techniques of indirect frequency synthesis, plus schematics and a description of a practical 400-channel synthesizer used in a 2 meter FM transceiver, with only one frequency-determining crystal.	Feb
Quarter-Wave Top-Loaded Mobile Antenna		A Mobile CW Transmitter		VHF—FM and You	
W5AZE An efficient, short quarter-wavelength dipole antenna for 20 meters.	Jun	W6BLZ For those who don't know what to do with their free hands while driving.	May	K9STH A "what's-it-all-about" type article covering everything that's happening in FM right now.	Mar
Eleven-Element 2 meter Circular Quad		CW Can Be Fun		6-to-12-volt Filament Conversion for the 41V	
W4KAE A new type of antenna that seems to have a lot to offer.	Jun	Staff An evaluation of Ord's DK-1 keyer.	Jun	W6YAN Changing the cheaper 6V Motorola FM units to 12V types.	Mar
The Sly Beam		QRP		AC Power Supply Conversion for the Motorola 41V	
ZL4TAH 21 dB gain on 2 meters with a new approach to the construction of yagis.	Jun	WA3JBN Two simple rigs for CW operation on 40 meters.	Jun	K9PKQ Schematic diagram and helpful hints for converting Motorola's trunk-mounting mobile unit to a base station.	Mar
Measuring the Difference Between Incident And Reflected Power		How to Build a Keyer and Retain Your Status as an Appliance Operator		Remote Multifrequency Oscillator for Surplus FM Units	
VE7BS The difference is the difference. Includes circuit for measuring reflected and forward rf.	Jun	W9KXJ A couple of guitar picks and some relay contacts can turn out a pretty nice looking sending key.	Jul	W2ACM Complete plans, PC layouts, and construction info for a four-frequency oscillator deck that can be used in the control head of such trunk-mounted units as GE, Motorola, Link.	Mar
The Effects of Temperature and Frequency On Coaxial Cable Loss		Mobile CW Receiver		Converting the Sonobuoy to a 2W FM Transmitter	
W9KXJ As transmission line temperature increases, so does loss — and vice versa. Complicating matters, the losses get worse as the operating frequency is raised. Includes charts.	Jun	W6BLZ For people who just can't seem to get enough code during the evening at home.	Jul	W1BYX Schematic diagram, photo, and instructions for converting the AN/SSQ-23A underwater transmitter to a 2W 2 meter FM rig. Also tells where to get such transmitters.	Mar
Improving the Performance of Trap-Type Vertical Antennas		The ICmitter		Kris Scanning Receiver	
W2EEY The addition of another element can considerably improve the performance of multiband verticals. The added element can be automatically bandswitched and a transmission line system used which allows simple changeover from an omnidirectional to a directive radiation pattern.	Jun	Goldstein Costs little and doesn't run much power, but it will put out a signal — AM or CW — on 40 through 160 meters.	Aug	Staff A close look at one of the newest entrants into the ham radio field.	Mar
A Practical DDDR Antenna		Integrated Circuit CW ID Generator		A Look at Amateur FM Standards	
W6WYQ Ring-type low-profile radiator that is hard to build. Good for mobile rooftops.	Jun	W7PUG A device for automatic identification — with CW — of FM repeaters. Author also offers to supply PC boards plus computer printout of any call letters, as optimized with the author's computer.	Sep	W6DJT A general survey of the VHF revolution with respect to repeaters over the past few years and some suggestions for planning ahead.	Mar
Two Receivers from One Antenna		Low-Cost Automatic Keyer: A First Project		A Poor Man's Frequency Meter	
WA6UFW An easy-to-make signal splitter that allows maximum utilization and minimum loss.	Jun	WB4MYL Schematic, description, and circuit board layouts for an inexpensive keyer that can send from 10 wpm to over 30.	Nov	W6YAN How to turn a cheap LM frequency meter into an extremely accurate piece of test equipment. You'll need the front end from a Sensicon receiver, too.	Mar
Remote SWR Indicator		DX		The Fine Points of FM Operation	
W2EEY Conventionally placed swr meters often do not indicate the true swr at the junction of the transmission line and antenna. Remote location of the reflected-power sensing portion of an swr unit is the key to true swr value indication.	Jun	How to Visit Foreign Countries		W2AEB Good common sense for FM beginners. Includes good hints on setting deviation level.	Apr
The Low-Noise Antenna		W2NSD/1 A few salient hints for prospective travelers and sometimes DX'ers.	Feb	Examining FM Repeater Operation	
WB6JNI Blasting the theory that an antenna always works as well receiving as it does transmitting.	Jun	Ham Exchange		W6DJT A state-of-the-art article telling it like it is, with suggestions as to how it ought to be.	Apr
Measuring RF Output		WA2ELA First-hand report of a "ham exchange" whereby DX visitors stay with U.S. amateurs, then reciprocate later when the U.S. hams visit the DX country.	Mar	A Repeater Controller	
WA6CPP Using a cheapie meter to measure wattage.	Jun	QSLing: Ham Radio's Own Con Game		WA4YND The myriads of mechanical contrivances that repeaters inevitably wind up with can be replaced with transistor equivalents...with a resulting increase in system reliability and decreases in headaches for the repairman. Complete circuits, with timers, COR, keyer control, etc.	Apr
Raising a Rhombic		VK4SS One ham's negative opinion of the state of DXing today.	Jul	Understanding the Carrier-Operated Repeater	
W8DYF All you really need is space.	Aug	Latham Island DXpedition		K6MVH The complicated repeater is not really so complex after all...it's only a matter of understanding the simple operations that are taking place when somebody transmits on the input frequency.	Apr
Log Periodic Antenna Designs for VHF/UHF		5H3LV Problems and successes in a recent DX trip to Zanzibar.	Jul	Evaluation: Standard 2m FM Transceiver	
W3DUQ Three arrays are featured: 21—55 MHz, 50—150 MHz, and 150—450 MHz.	Aug	Worldwide ITU Prefix/Call Area List		W6QGN A close look at the SR-C-806M transistor transceiver.	Apr
ATV: Getting a Better Picture		W1SWX Reprinted from DX'er Magazine.	Jul	Directory of American Open Repeaters	
WA6BJV Plans for a good antenna and suggestions for other station improvements.	Aug	YO — An Interesting DX		Staff A comprehensive listing of open repeaters in the United States and Canada. Includes editorial introduction and writeup about repeaters in general.	Apr
Brew 1 on 2 — a 2 Meter Coaxial Antenna		FM		FM Repeaters Under Fire From FCC	
WA0RWQ The title is alluding to California's "Brew 102" beer. The article describes a beer-can coaxial antenna that can be fun to make if you obtain the cans as the author suggests.	Sep	VHF—FM: A New Involvement		Staff The first published notice of FCC's infamous Docket 18803. Sketchy but essentially accurate.	Apr
Four-Wire Inverted Vee		K6MVH The story of FM Magazine's demise and the promise of 73 to give adequate attention to FM, an area all but neglected by ham journals in the past.	Jan		
WA6COB Simple but effective antenna for 40 and 80 meters.	Oct	Low-Cost Electronics: Japan's FM Invasion			
Remote Quad Tuning		K6MVH A brief overview of some of the 2m FM transceivers that are being imported for sale to the booming VHF ham market.	Jan		
W6AJZ How to tune a quad stub from a control box situated at the operating console.	Nov	Setting Up the Tone-Burst System			
CW		W6TEE The little details that are necessary in setting up a toned repeater, including a tone-burst timer for the user mobiles.	Feb		
The Combo		Tone Decoder for Remote Switching Applications			
K4FQU A CW monitor that is installed between the key and the transmitter. Contains but one transistor. Simple. Effective.	Jan	K6MVH A simple and tested tone decoder that may be used for such repeater control applications as whistle-on and tone-burst access systems.	Feb		
Mobile CW					
K6RA A fantastically great way to get yourself killed on a Los Angeles Freeway.	Jan				
First Class Keyer Key					
W6BLZ Quickie article describes a cute modification to modernize an inexpensive but readily available "bug."	Jan				
A CW Monitor					
WB2GQY How to get a 98¢ oscillator module to key on and off with rf. Uses a voltage doubler rf pickup.	Mar				

A Word About Repeaters		Semiautomatic FM Channel Scanning		Government Surplus	
WB2AEB	Apr	WA0QPM	Nov	Straight From the Horse's Mouth	
The trend for the future seems to be to use a compatible deviation of both narrowband and wideband rigs: this is accomplished with a peak deviation of about 8 kHz at the repeater transmitter. Other trends and characteristics also noted. Included with the repeater directory.		Using ordinary flasher module, this unit connects to a two-channel FM transceiver to allow monitoring of both channels by a scanning sequence. Does not lock onto a signal.		WA9ANW	Jun
7/8-Wave Mobile Antenna for 2 meter FM		2-Meter Minitransmitter for Repeater Use		Improving the Performance of Trap-Type Vertical Antennas	
W2EUP	Apr	WB6BIH	Dec	W2EY	Jun
(Antennas)		A straightforward, simple transmitter with five stages using five transistors.		The addition of (Antennas) in consideration	
FM-AM Transmitter-Receiver Aligner		Regency — an FM Late-Starter		The Club for Blind Amateurs	
W3JKL	May	Staff	Dec	Champagne	Aug
A signal generator that can be used in conjunction with a transmitter to give a zero beat for frequency measurements. Also useful for aligning FM receivers.		A comprehensive comparison of the Regency 2 meter transceiver with other units currently available.		Pictorial story of K1TPX, the Perkins Radio Club for the Blind.	
The Intelligent Use of 2 Meters FM		General Info		Ham Radio Chess	
K1ZJH	May	Fascinating Fundamentals: Volta and His Pile		W1EMV/0BMW W	Aug
A general description of the way it's done on FM (it IS different), and a few words of wisdom to people who aren't used to working through repeaters.		W2FEZ	Jan	Two schemes for annotating chess games for over-the-air play.	
A Low-Band Police Monitor		Fascinating Fundamentals: The Terrible Jar at Leyden		What Really Happened to Hamdom?	
W6JTT	May	W2FEZ	Feb	W9HBF	Sep
How to modify Motorola's old, no longer used 30D type receivers by building up a simple supply and diddling with the receiver oscillator.		Interesting historical facts about the Leyden Jar; how to duplicate it and make your own capacitor.		The author asks why we are in the state we are. He advocates QRO and a good beam as opposed to brute force power, and points to some uncomfortable comparisons between ham radio and citizens band.	
The Wichita Autopatch		How Do Ham Radio Stores Decide Trade-In Prices?		YO — An Interesting DX	
W0DKU	May	W2CEP	Apr	YO2BO	Oct
Tied in with the local repeater, this phone patch received approval from Ma Bell. Includes descriptions of the patch and tells how Ma Bell was conned into going along with the idea.		The owner of Stellar Industries gave this rundown on the way prices are figured in the amateur radio game. Stellar is no longer in the ham business, but the article is nonetheless applicable.		(DX)	
An FM Best Buy		Beryllia — The Lethal Refractory		AC Switching with Self-Powered ICs	
WA7EMM	May	WB2PAP	Apr	W2FBW	Nov
How to convert the world's rarest FM rig (Comco) from commercial service to the ham band.		Take another look at those tube boxes on your shelf; those ceramic jobs that are made with beryllia could be dynamite!!		A new approach to power switching of ac circuits: rfi is eliminated, power supply diodes are protected, switch contact wear is reduced, and tube heater life extended. ICs switch at the zero current point.	
FET Preamps for VHF FM		Inexpensive New Semiconductors for the Ham		Pioneer Radio on the Prairie	
WA4WDK	May	WA7KRE	Apr	W6CXC	Nov
Two good preamps are described — one for 6 and the other for 2 meters. Complete performance curves, construction data, schematics, etc. are given. Preamps are grounded-gate, which offers high gain, ease of tuning, and simplicity of construction.		Descriptions and representative circuits for a whole flock of recently introduced semiconductors from Motorola. Includes dual-gate MOS-FETs, several power amplifiers, thyristors, rectifiers, etc. Circuits included: VHF amplifier, audio amplifiers, telephone amplifier.		Sentimental remembrances of E. E. Krebsbach and the contributions he gave to the field of amateur radio.	
Allied Portable FM Receiver		London's Science Museum Demonstration Station		Helpful Hints	
K9STH	Jul	Ellison	May	Proper Use of Silicon Diodes	
An evaluation of Allied's A-2587 pocket FM receiver.		A look inside the museum and a description of the amateur radio facilities there. Includes photos.		IWA3ACL	
A Two-Channel Search-Lock for FM Receivers		Plus Ten dB. . .		Jan	
W3DTN	Jul	W2OLU	May	How to use the ratings of diodes in your rectifier projects. Includes suggested applications for such diodes.	
Simple gadget turns a 2-channel rig into an automatic scanner type, and provides the added capability of locking onto a channel where activity is sensed.		A quick way to relate power to decibels, and an easy method for calculating one commodity or the other when one of the commodities is known.		Simple Compact 6m Bandpass Filter	
Super Autopatch		Selectivity Has Come a Long Way		WA5SWD	
K6MVH	Jul	Swan	May	Jan	
Why automatic phone patches are important for public service. Includes construction data for a patch that does everything.		The theory of bandpass filters and a description of Swan's newest entry. Includes performance specs.		A high-performance TVI for 6 meters that costs less than \$5 to build. The filter is to be installed in the transmitter's transmission line.	
Repeater Audio: Time Out for Quality		Science Fairs: Science Education?		Using Diodes for Adapting AC Relays to DC	
K6MVH	Aug	Mocking	May	WA5SWD	
Use of a cathode follower to pick audio directly from the repeater's discriminator can do wonders for an ailing amateur relay system.		A revealing look at the schools' approach to science education these days. Good reading for those who care.		Jan	
Optimizing Antenna Separation in FM Repeaters		Bigger Knobs for Better Performance		Simple shorty article showing the right way to use diodes for low-voltage rectification where the object is to use dc relays with an ac supply.	
K6MVH	Sep	WB21CV	May	The DX-35 Revisited	
If the receiving range of your repeater can't match the output capability, the problem could be desensitization. And chances are you can solve the problem by as simple a step as moving the antennas around a little at the repeater site.		An encapsulated rundown on the findings of a high-cost program to human-engineer consoles. Modern science now says tiny knobs can cramp your style!		W2A00	
DyComm's 15W 2 Meter Mini-Amplifier		Epoxies for Electronics		Feb	
Staff	Sep	W9KXJ	May	A trick or two for updating Heathkit's popular DX-35 Novice rig.	
An evaluation of a ready-made 15W class C amplifier that can be used for VHF CW or FM applications, requiring only 20 mW of drive.		How to steal a trick from the professionals and use modern epoxies to perform the bonding that once had to be done with a hot soldering iron.		From Breadboard to Printed Circuits the Easy Way	
Integrated Circuit CW ID Generator		Comments on FCC Repeater Proposal		K1A0B	
W7PUG	Sep	Staff	May	Feb	
(CW)		A point-by-point reprint of the FCC's Docket 18803, along with suggested revisions to make the rules more realistic and easier to live with.		A simple system for making PCs by using an Xacto knife to cur around original artwork.	
Low-Cost Oscillator & Infinite Attenuator for Tuning VHF Receivers		Ground Support for the Powder Puff Derby		Professional PCs From Roll-Your-Own Negatives	
K1CLL	Sep	W7ZC	Jun	Mar	
A signal generator with a very reliable and repeatable attenuation device for adjusting receiver front ends to maximize sensitivity.		The ins and outs of providing communications for the most famous air contest in the world.		A means for creating high-quality printed circuits without the time-consuming and expensive dark-room processes.	
Controlling Repeaters with Tones		The Low-Noise Antenna		Easy Diode Testing	
K6MVH	Oct	WB6JNI	Jun	Mar	
Basic repeater control logic, and how to set up a tone control system for tone-burst or whistle-on use.		(Antennas)		A clever means for nondestructively testing "bargain" diodes to learn their PIV.	
		The Effects of Temperature and Frequency on Coaxial Cable Loss		Super Sizer	
		W9KXJ	Jun	Mar	
		(Antennas)		Many little modifications that will cut the resale value of Heath's Sixer, but which will surely make the rig work better.	
		Bigger Knobs for Better Performance		Renovating Surplus Meters	
		WB21CV	May	Apr	
		(General Information)		A test or two, a dab of white paint. . . and presto!	
		Bigger Knobs for Better Performance		Keep 'Em Cool in KPO Cans	
		(General Information)		May	
				Construction data for building simple heatsinks for vacuum tubes. The idea is to extend tube life and reduce heat dissipation within the tube envelope.	
				Epoxies for Electronics	
				May	

Educated Idiot Lights
Holford May
 How to modify the car's "idiot light" warning system by adapting a buzzer to complement it.

Coax Adapter — VHF to BNC
W9MEV Jun
 A "quickie" article shows how to combine fittings to get a professional looking adapter.

Useful Cable Clamps
WA6CPP Jun
 A brisk shorty telling how to use hose clamps to hold cables.

De-RF Your VTVM
WA0FFJ Jun
 A quick and easy way to clean it up.

Two Receivers from One Antenna
WA6UFW Jun
 (Antennas)

Measuring RF Output
WA6CPP Jun
 (Antennas)

Installing the Swan 250C Noise Silencer
WA6CPP Jun
 Pictorial story tells how to do it neatly.

A Soldering Gun Tip
WB6PKA Jul
 Using silver-plated wire for soldering.

Mount That Mobile Right
K4IPV Aug
 The right kind of mobile installation will result in bigger signals, better operator safety, and more fun in hamming on the road.

ATV: Getting a Better Picture
WA6BJV Aug
 (Antennas)

Converting 24V DC Relays to 115V AC
Douglas Sep
 Three circuits and a brief article on how to accomplish this task.

Reed Relays for UHF/VHF Coaxial Switching
W7CRY Sep
 How to use reed relays in place of the expensive coax relays and get better overall performance. Includes frequency loss and isolation curves.

Neater Cabling With Nylon Cord
WA0ABI Oct
 Use of nylon and heat to make it neat.

Improving Regulation in High Voltage Supplies
K6BW Oct
 Shorting out the surge resistors with a delay circuit to improve performance of a high-voltage regulated power supply.

Calibrate that Calibrator
W2KPE Nov
 Using WWV to calibrate the receiver 100 kHz calibrator more accurately than it has ever been calibrated before.

Solid-State Delta-F Control for SSB Exciters
W4NVK Dec
 Vernier tuning eliminates dial backlash and other tuning anomalies, and gives precision variable-frequency control of operating slot.

Two-Terminal Current Limiter
Beene Dec
 Simple series circuit holds current to safe level.

Humor
The Manuscript Game
Staff Jan
 Every good article gets its due reward.

How I Read the Radio Operator's Handbook and Found Happiness . . .
Johnson Mar
 The author's story of how he mastered ham radio theory overnight.

Bob-Bob-Bobbin' Along
K1YSD Mar
 Utter chaos and hilarious confusion from the pen of 73's only insane author.

That Contest Craze
VK4SS Aug
 An old tiger bares his fangs.

Code Practice a la Baby Talk
W9OXA Sep
 Sometimes there are advantages to becoming a ham that aren't even listed in the manuals.

Camouflage
K99AZG Oct
 How to buy lots of ham gear without letting the old lady know.

Clinks in a Vacuum
Derfler Dec
 A low-pressure article for wives. (Or for husbands to show wives who don't dig radio.)

Hams are a Funny Bunch of People
K3KMO Dec
 A few of the paradoxes that make it easy for us to laugh at ourselves.

Yipes, It Talks!
W2FEZ Dec
 Fool your friends with a newspaper that talks. It's a homebrew electrostatic speaker fashioned from papers and foil.

IC Projects
Frequency Synthesis: The Modern Way to Control Frequency
W2EUP Feb
 (FM)

New Linear ICs for the Ham
WA4KRE Feb
 A down-to-earth description of Motorola's latest ICs for amateurs, along with schematics lifted from Motorola's application notes. Includes power supply and regulator circuits, amplifiers, modulators.

A Logical Approach to Surplus Buying
K5JKX Mar
 How to identify and test ICs commonly found in the surplus market. Includes an extremely literate discussion of the principles of logic.

Low Frequency I-F Modules Using ICs
K1CLL Mar/Apr
 Description of what the author feels is the ideal i-f. This text includes a very good dissertation of the ins and outs of such popular i-fs as 455 kHz.

High-Performance Power Supply Using an IC Voltage Regulator
K0ECF Jul
 0-20V at up to 500 mA in a tiny package.

An Impedance Multiplier for the VOM
K6DQB Jan
 Using an IC to do the trick.

The ICmitter
Goldstein Aug
 (CW)

Three Versatile IV Testers
WA2IKL Sep
 This article lists pin diagrams for the common ICs and describes simple testers for checking digital, linear, and counter ICs.

Understanding and Using Integrated Circuits
W6DNS Oct
 All the basics; what they are, how they're used; why they're used.

The Phase-Locked Loop Comes of Age
K5JKX Oct
 A new IC and how it can be used in some pretty sophisticated circuitry.

Low-Cost Function Generator for Experimenters
WA2IKL Oct
 Makes sine, square, and sawtooth with excellent quality.

IC Marker Generator
K4BBC Oct
 Simple IC device gives marker signal when you approach the edge of your authorized band.

Practical IC Regulator Circuits for Hams
WB2EGZ Oct
 For a 500 mA supply.

ICs for Amateur Use
K1CLL Oct
 Describes a couple of good rf amplifiers using inexpensive ICs. One for 6 meters, another for 40.

AC Switching with Self-Powered ICs
W2FBW Nov
 (Gen. Info.)

Low-Cost Automatic Keyer: A First Project
WB4MYL Nov
 (CW)

Solid-State Transceiver for 40 Meters: the SST-1
W9ZTK Nov
 A modularized QRP rig with built-in swr bridge, CW monitor. Has ICs in audio and receiver sections.

Solid-State Exciter
W6YUY Dec
 ICs and transistors makes this SSB exciter modern, inexpensive, and efficient.

(HR PROJ)
W2FEZ Dec
 Yipes, It Talks!
 (Humor)

Keyers
Transceiver Companion
W6AJZ Jan
 This is a complete control console and accessory for the transceiver that doesn't already have everything. It includes compressor, preamp, electronic keyer, phone patch, speaker, clock, and the kitchen sink all in one neat package.

CW Can Be Fun
Staff Jun
 (CW)

Low-Cost Automatic Keyer: A First Project
WB4MYL Nov
 (CW)

Mobile
Mobile CW
K6RA Jan
 (CW)

Base-Tuned Center-Loaded Antenna
W2EEY Jan
 (Antennas)

SSB-AM-FM Modulation System
W2BSP Jan
 Tongue-in-cheek technical article about a system the author actually uses. He calls it "frequency aperture" modulation. The most interesting part of the article is the author's clever adaptation of a 55 gallon drum for use as a 10 meter cavity.

The Camper — Mobile and Portable
WA9EHE Feb
 How to get the most out of a ham station when you own a camper, plenty of radios, and like to travel a lot.

Variable-Impedance Mobile Mount
W1EMV Feb
 (Antennas)

7/8-Wave Mobile Antenna for 2 meter FM
W2EUP Apr
 (Antennas)

RF Riviera Style
K9BDJ May
 The story of a Buick-owner's problems and how he traced them down in order to eliminate mobile interference.

A Mobile CW Transmitter
W6BLZ May
 (CW)

An FM "Best Buy"
WA7EMM May
 (FM)

A Ham-Style Burglar Alarm for the Car
K2JLD May
 Description of a scheme for foiling prospective rig thieves.

Educated Idiot Lights
Holford May
 (Helpful Hints)

5/8 Wavelength Verticals
EA0NGV May
 (Antennas)

The 27-Minute Mobile Limiter
W7SOH May
 How to build an effective noise limiter. As an alternative, the author shows how to modify an existing Bishop type noise limiter. The modification takes 27 minutes.

A Practical DRRR Antenna
W6WYQ Jun
 (Antennas)

Quarter-Wave Top-Loaded Mobile Antenna
W5AZE Jun
 (Antennas)

Installing the Swan 250C Noise Silencer
WA6CPP Jun
 (Helpful Hints)

Mount That Mobile Right
K4IPV Aug
 (Helpful Hints)

6V From 12 — The Easy Way
K3GSY Sep
 High current regulator that uses two transistor and a zener. Better approach than the "dropping resistor" idea.

Semiautomatic FM Channel Scanning
WA0QPM Nov
 (FM)

Noise Clippers
A Noise Blanker That Works
W8RHR Apr
 It DOES work, but the article somehow got into print without being edited, and there are some errors. Those who want to build should drop a card to editor of 73 to get straightened out on discrepancies.

The 27-minute Mobile Limiter
W7SOH May
 (Mobile)

Installing the Swan 250C Noise Silencer
WA6CPP Jun
 (Helpful Hints)

Novel Ham Radio Projects
Converting the 4CX1000 into a Lamp
K3QKO Jan
 A clever lamp for the ham's ham. Even has a switch fashioned from a coaxial connector. Better not to use a new tube for the lamp, though; it will have somewhat of an impact on the total cost of the project.

Transceiver Companion
W6AJZ Jan
 (Keyers)

The Dip Light
VE3ECU Mar
 A grid-dipper that uses lamp intensity instead of a meter.

Add Spotting to your VFO
K8BYO Mar
 Cute and simple technique that lets you hear the vfo without transmitting.

Reverse-Current Charging
K8YUC Mar
 With an almost foolishly simple technique you can successfully recharge ordinary dry cells, and make them hold the charge again and again.

Single-Sideband on the All-Wave Radio
W7CSD Apr
 A miniature tunable oscillator provides an ideal source for a beat-frequency signal, and allows you to hear code and SSB on any selective receiver without making modifications to your store-bought gear.

A Low-Band Police Monitor
W6JTT May
 (FM)

A Ham-Style Burglar Alarm for the Car K2JLD (Mobile) May	QRP WA3JBN Jun Two sample rigs for CW operation on 40 meters.	Repeaters Setting Up the Tone-Burst System W6TEE (FM) Feb
Educated Idiot Lights Holford May How (Helpful Hints)	The ICmitter Goldstein Aug (CW)	Tone Decoder for Remote Switching Applications K6MVH (FM) Feb
The Consummate Console WB2FBF Aug Increasing station efficiency and enjoyment with a broadcast-style console. Includes plans and construction data.	VHF AM Transmitter Using Low-Cost Transistors. Brubaker Aug If it'll work on AM it'll work on FM.	Encoders for Subaudible, Tone-Burst or Whistle-On Use W6ZCL (FM) Feb
IC Marker Generator K4BBC Oct (IC Projects)	ICs for Amateur Use K1CLL Oct (IC Projects)	A Look at Amateur FM Standards WB6DJT (FM) Mar
Solid-State 10-Minute Timer WB4MYL Oct Plans, layout, and PC pattern for a MOSFET timer for various station functions or repeater applications.	2W 6 Meter Transmitter Using the Heterodyne VFO K1CLL Nov Breadboard design, tuneup, and performance of an rf power stage on 6m using a \$3 transistor and a stable vfo circuit.	A Work Session on the Wichita Repeater W0DKU Apr Nobody knows any better than the repeater owner just how religiously Murphy's laws are followed by Nature . . .
Power Supplies Simple Bench Power Supply ZL2AMJ Jan Provides four output voltages, three current-overload limits. The techniques described can be applied to other power supplies.	Solid-State Transceiver for 40 Meters: the SST-1 W9ZTK Nov (IC Projects)	FM Repeaters Under Fire From FCC Staff Apr The first published notice of FCC's infamous Docket 18803. Sketchy but essentially accurate.
Proper Use of Silicon Diodes WA3ACL Jan How to use the ratings of diodes in your rectifier projects. Includes suggested applications for such diodes.	2-Meter Minitransmitter for Repeater Use WB6BIH Dec (FM)	Examining FM Repeater Operation WB6DJT (FM) Apr
A 10m/CB Preamp WA3HMW Jan Using a surplus 10m preamp with a slight amount of conversion. Details include power supply instructions.	Receivers Solid-State Double-Bandwidth Tunable I-F Converters K1CLL Jan A good tunable converter can get you any frequency or band in the VHF range you want. This article tells how, and it includes schematics, parts lists, and complete instructions.	Understanding the Carrier-Operated Repeater K6MVH (FM) Apr
Using Diodes for Adapting AC Relays to DC WA5SWD Jan Simple shorty article showing the right way to use diodes for low-voltage rectification where the object is to use dc relays with an ac supply.	A 10m/CB Preamp WA3HMW Jan Using a surplus 10m preamp with a slight amount of conversion. Details include power supply instructions.	Directory of American Open Repeaters Staff (FM) Apr
New Linear ICs for the Ham WA4KRE Feb (IC Projects)	A Simple IC Q-Multiplier W2EY Feb Using an IC opamp for a Q-multiplier. Advantages include simplicity, broad range of operation, and variable Q and peaking frequency.	A Repeater Controller WA4YND (FM) Apr
Turning the AN/GRC-9 Into a Novice Rig W6JTT Mar (CW)	High-Performance Converter for 6 WA9HES Feb Tube-type converter uses a Nuistor. This article may become valuable as the last tube converter circuit ever published.	A Word About Repeaters WB2AEB (FM) Apr
A Simple Bias Regulator for Linear Amplifiers ZL2ANG Apr Shunt regulation for bias supplies offers the advantage of low constant current drain, and it can be used with the neglected — till now — class B and AB2 linears.	Low Frequency I-F Modules Using ICs K1CLL Mar/Apr (IC Projects)	The Wichita Autopatch W0DKU (FM) May
Vacuum-Tube Load Box Ashe Apr Schematics, photos, and construction details for a power supply test set . . .	High Performance I-F Amplifier and AGC System ZL2BDB Apr For CW or SSB work, you'll find this system hard to beat with its fast-attack, slow-decay characteristics. A wide latitude of stage gain is assured with both forward-and reverse-acting age elements.	73 Comments on FCC Repeater Proposal Staff (General Information) May (General Information)
Power Supplies From Surplus Components WB6BIH May Lots of theory and a few schematics for converting old surplus junk into something useful. If you're a mathematician, this is certainly your bag.	Hot Carrier Diode Mixer Converter for 2 Meters WA6NCT Apr Low noise, high gain, excellent overload resistance, and a very high degree of isolation combine to make the hot carrier diode particularly attractive for applications in receivers and converters. This article has good PC layouts, photos, schematics.	The Intelligent Use of 2 Meters FM K1ZJH (FM) May
High-Performance Power Supply Using an IC Voltage Regulator K0ECF Jul (IC Projects) <i>Kagc.</i>	FET Preamps for VHF WA4WDK May (FM)	A Two-Channel Search-Lock for FM Receivers W3DTN (FM) Jul
More Notes on Diode Stacks W2BDG Sep A description of GE's high-power (5 kV at 300 mA) rectifier modules.	I-F Filter, Converter, AVC "Ideal" Circuits K1CLL May The second half of Hoisington's two-article series on the ideal i-f. This one includes breadboarding the complete i-f system.	Super Autopatch K6MVH (FM) Jul
6V From 12 — The Easy Way K3GSY Sep (Mobile)	450 MHz Mighty Mite K9VXL Jul A superregenerative receiver for 432 MHz. Includes PC layout.	Repeater Audio: Time Out for Quality K6MVH (FM) Aug
Simple Regulated Power Source for ICs W1RAN Oct Regulated power supply using series diodes (not zeners) to give precise values of required voltages.	Mobile CW Receiver W6BLZ Jul (CW)	Optimizing Antenna Separation in FM Repeaters K6MVH (FM) Sep
Practical IC Regulator Circuits for Hams WB2EGZ Oct (IC Projects)	Deluxe Receiver Gain Control VU2JN Sep Improving age rformance in tube-type receivers with the addition of a transistor control circuit. Includes chart showing tracking curve.	Integrated Circuit CW ID Generator W7PUG (CW) Sep
Improving Regulation in High Voltage Supplies K6BW Oct (Helpful Hints)	A Versatile and Stable MOSFET Converter for 144 MHz WB6YVT Sep A low-noise, high performance converter with excellent gain.	Controlling Repeaters with Tones K6MVH (FM) Oct
Differential J-FET Preamp W4KAE Nov Design, construction data, and performance curves for a low-noise preamp using an RCA CA-3028 J-FET. Includes separate power supply circuit.	The Phase-Locked Loop Comes of Age K5JKZ Oct (IC Projects)	Solid-State 10-Minute Timer WB4MYL Oct (Novel HR Projects)
Your Second Linear W4AYI Dec High-power linear amplifier using a 3-500Z vacuum tube for the final. Includes schematic for a kilowatt power supply.	Differential J-FET Preamp W4KAE Nov (Power Supplies)	2-Meter Minitransmitter for Repeater Use WB6BIH (FM) Dec
QRP "Quazar" QRP 40m DSB Transmitter WA5WWN Jan Good low-power rig for sideband or CW; uses 4 transistors and an audio amplifier module.	RF Applications of the Dual-Gate MOSFET Staff Nov Application suggestions from the engineering desk at Fairchild Semiconductors. Includes receiver circuits and amplifiers for VHF.	Reviews Kris Scanning Receiver Staff (FM) Mar
Postage Stamp Transmitter for Six K1CLL May Complete plans — including part list, layout, schematic, and construction details for a transmitter that is an eighth of an inch thick and only 3/4 in. square. This one really works, too.		Evaluation: Standard 2m FM Transceiver W6QGN (FM) Apr
		The Grundig "Satellite" Receiver Staff Jun An evaluation of a portable receive that has everything, including stable SSB.
		CW Can Be Fun Staff (CW) Jun
		Allied Portable FM Receiver K9STH (FM) Jul
		The Knight-Kit RF Generator W9KXJ Aug An evaluation of the KG-696 signal generator.
		DyComm's 15W 2 Meter Mini-Amplifier Staff (CW) Sep
		Regency — an FM Late-Starter Staff (FM) Dec

SSB		Converting 24V DC Relays to 115V AC		Bibliography of SSTV	
Single-Sideband on the All-Wave Radio W7CSD (Novel HR Projects) Apr	Test Equipment	Douglas (Helpful Hints) Sep	W4UMF Complete directory of articles. Jul	Improved Color Transmission — SlowScan TV W4UMF Applying the principles of color separation and synthesis. Jul	
A New Approach to Communications Equipment K9ALD The author describes a modular concept for standardizing of SSB transceiver design. The object is to improve performance of each module in an SSB system, while affording hams the opportunity of building or repairing their own. Sep	Test Equipment	Panoramic Receiver for VHF IISLO A spectrum analyzer of sorts. Let's you see on a CRT the whole 2 meter band at once. Feb	WA6BJV ATV: Getting a Better Picture (Antennas) Aug	Amateur TV is Easy K2OJL It actually costs no more than \$100 to get started in the fun hobby of amateur TV. Dec	
Your Second Linear W4AYI (Power Supplies) Dec	Frequency Synthesis: The Modern Way to Control Frequency W2EUP (FM) Feb	Extra Services from Your Grid Dip Oscillator WA4UZM A plug-in adapter turns a grid-dipper into a good crystal calibrator. Mar	(UHF)	Amateur TV is Easy K2OJL (TV) Dec	
Solid-State Delta-F Control for SSB Exciters W4NVK (Helpful Hints) Dec	An Inexpensive RF Wattmeter WB4MYL (Surplus) Mar	An Inexpensive RF Wattmeter WB4MYL (Surplus) Mar	K9VXL 450MHz Mighty Mite (Receivers) Jul	UHF	
Surplus	A Poor Man's Frequency Meter W6YAN (FM) Mar	A Poor Man's Frequency Meter W6YAN (FM) Mar	Log Periodic Antenna Designs for VHF/UHF W3DUQ (Antennas) Aug	ATV: Getting a Better Picture WA6BJV (Antennas) Aug	
A 10m/CB Preamp WA3HMW (Power Supplies) Jan	Vacuum-Tube Load Box Ashe (Power Supplies) Apr	Vacuum-Tube Load Box Ashe (Power Supplies) Apr	Reed Relays for UHF/VHF Coaxial Switching W7CRY (Helpful Hints) Sep	High-Performance Converter for 6 WA9HES (Receivers) Feb	
Using Diodes for Adapting AC Relays to DC WA5SWD (Power Supplies) Jan	How to Megger Your Antenna W2EEY (Antennas) Apr	How to Megger Your Antenna W2EEY (Antennas) Apr	Super-Sixer WA3AQS Many little modifications that will cut the resale value of Heath's Sixer, but which will surely make the rig work better. Mar		
Facsimile and the Radio Amateur K6GKX More on adapting surplus equipment to ham FAX service; includes photos of equipment, block diagrams, and a chart showing transmission frequencies and times for various stations. Jan	FM-AM Transmitter-Receiver Aligner W3JKL (FM) May	FM-AM Transmitter-Receiver Aligner W3JKL (FM) May	Inexpensive New Semiconductors for the Ham WA7KRE (General Information) Apr		
The Knight-Kit RF Generator W9KXJ (Product Reviews) Aug	Measuring the Difference Between Incident and Reflected Power VE7BS (Antennas) Jun	Measuring the Difference Between Incident and Reflected Power VE7BS (Antennas) Jun	7/8-Wave Mobile Antenna for 2 Meter FM W2EUP (Antennas) Apr		
An Impedance Multiplier for the VOM KDBQ (IC Projects) Jan	Remote SWR Indicator W2EEY (Antennas) Jun	Remote SWR Indicator W2EEY (Antennas) Jun	Postage Stamp Transmitter for Six K1CLL (QRP) May		
File Box Resistance Decade WB4ITN The first in a series of "file box" articles. Here the author makes a precision decade box and includes schematics for variations of his own design. Sep	Measuring RF Output WA6CPP (Antennas) Jun	Measuring RF Output WA6CPP (Antennas) Jun	The Sly Beam ZL4TAH (Antennas) Jun		
The Indicating Oscillator KH6AF A grid-dipper without grids. Uses FETs. Includes a circuit for amplifying microamps to milliamps, which should be handy for other projects as well. But be careful. Fig.1 is labeled 2 and vice versa. Sep	Amateur Wattmeter for \$3.85 K1CLL Tells you your power output from about 10 mW to 5W, over the range from 160 meters through 450 MHz. Principle is based on comparison of an rf activated lamp with another of same brilliance whose power input is known. Aug	Amateur Wattmeter for \$3.85 K1CLL Tells you your power output from about 10 mW to 5W, over the range from 160 meters through 450 MHz. Principle is based on comparison of an rf activated lamp with another of same brilliance whose power input is known. Aug	Eleven-Element 2 meter Circular Quad W4KAE (Antennas) Jun		
Three Versatile IV Testers WA2IKL (IC Projects) Sep	Transmitters	Transmitters	Cheapie 6-Meter Half Gallon K1CLL (Transmitters) Jul		
Low-Cost Oscillator & Infinite Attenuator for Tuning VHF Receivers K1CLL (FM) Sep	"Quazar" QRP 40m DSB Transmitter WA5WWN (QRP) Jan	"Quazar" QRP 40m DSB Transmitter WA5WWN (QRP) Jan	VHF AM Transmitter Using Low-Cost Transistors. Brubaker (QRP) Aug		
A Low-Cost RF Wattmeter WA3AJR Inexpensive means of using an ordinary meter and a conversion chart to accurately gage power output from 4 to 4000 Watts. Nov	Postage Stamp Transmitter for Six K1CLL (QRP) May	Postage Stamp Transmitter for Six K1CLL (QRP) May	Log Periodic Antenna Design for VHF/UHF W3DUQ (Antennas) Aug		
Calibrate that Calibrator W2KPE (Helpful Hints) Nov	VFO Circuit KOHVK Tube-type for 80 and 40 meters. Easy to build. Jun	VFO Circuit KOHVK Tube-type for 80 and 40 meters. Easy to build. Jun	Low-Cost Oscillator & Infinite Attenuator for Tuning VHF Receivers K1CLL (FM) Sep		
The Transi-Test WB6QQP Useful but simple device can measure transistor beta, leakage, and shorts. Dec	QRP WA3JBN (CW) Jun	QRP WA3JBN (CW) Jun	Brew 1 on 2 — a 2 Meter Coaxial Antenna WA0RWQ (Antennas) Sep		
The Little Gate Dipper W5ETT Another grid-dipper with no grid; covers 1.7 to 225 MHz, yet is cheap and quick. Dec	Cheapie 6-Meter Half Gallon K1CLL It works out to \$12.50 a quart, and features low-cost tubes, no screen voltage, no bias requirements, and no blower. Jul	Cheapie 6-Meter Half Gallon K1CLL It works out to \$12.50 a quart, and features low-cost tubes, no screen voltage, no bias requirements, and no blower. Jul	DyComm's 15W 2 Meter Mini-Amplifier Staff (CW) Sep		
Turning the AN/GRC-9 Into a Novice Rig W6JTT (CW) Mar	The ICmitter Goldstein (CW) Aug	The ICmitter Goldstein (CW) Aug	Differential J-FET Preamp W4KAE (Power Supplies) Nov		
A Logical Approach to Surplus Buying K5JKX (IC Projects) Mar	VHF AM Transmitter Using Low-Cost Transistors. Brubaker (QRP) Aug	VHF AM Transmitter Using Low-Cost Transistors. Brubaker (QRP) Aug	2W 6 Meter Transmitter Using the Heterodyne VFO K1CLL (QRP) Nov		
A Poor Man's Frequency Meter W6YAN (FM) Mar	ICs for Amateur Use K1CLL (IC Projects) Oct	ICs for Amateur Use K1CLL (IC Projects) Oct	Semiautomatic FM Channel Scanning WA0QPM (FM) Nov		
Converting the Sonobuoy to a 2W FM Transmitter W1BYX (FM) Mar	Solid-State Transceiver for 40 Meters: the SST-1 W9ZTK (IC Projects) Nov	Solid-State Transceiver for 40 Meters: the SST-1 W9ZTK (IC Projects) Nov	RF Applications of the Dual-Gate MOSFET Sir (Receivers) Nov		
An Inexpensive RF Wattmeter WB4MYL Simple adaptation of a piece of surplus equipment. Mar	Solid-State Exciter W6YUY (IC Projects) Dec	Solid-State Exciter W6YUY (IC Projects) Dec	20Meter Minitransmitter for Repeater Use WB6BIH (FM) Dec		
Power Supplies From Surplus Components WB6BIH (Power Supplies) May	Your Second Linear W4AYI (Power Supplies) Dec	Your Second Linear W4AYI (Power Supplies) Dec			
Government Surplus Straight from the Horse's Mouth WA9ANW (General Information) Jun	TV	TV			
	Slow-Scan Color TV W4UMF The principles of color separation, as applied to slow-scan television systems. Includes spectral charts, photos of off-the-air pix. Jan	Slow-Scan Color TV W4UMF The principles of color separation, as applied to slow-scan television systems. Includes spectral charts, photos of off-the-air pix. Jan			