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Star Performers!

ICOM's VHF/UHF Pairs for Satellite Communications

Oscar 10... Are you ready? Join the future of amateur satellite communications with ICOM's VHF and UHF transceivers. Read why ICOM is... *Simply The Best* for satellite communications.

IC-271A, 471A Twins

This new series of VHF/UHF base stations offers a combination of features and flexibility found in no other transceivers anywhere. For receiving, ICOM's low-noise IC-471A features a less than 0.5 microvolt for 10dB quieting SSB receiver plus an optional mast-mounted GaAs FET preamplifier with a 15dB gain.

Thirty-two tunable memories keep the IC-471A ready to go on frequency and to monitor the beacon frequencies. A good noise blanker plus all-mode squelch make listening a real pleasure. 10Hz variable speed tuning, which automatically shifts to 100Hz when needed, and a low-noise PLL that locks to 10Hz makes the frequency resolution of the ICOM Twins



ICOM's Stackable Portable Twins IC-290H & IC-490A

second to none. For MODE B use, the IC-471A features a 10W SSB transmitter with variable power control.

The same basic features of the IC-471A apply to the IC-271A and an optional internal pre-amplifier with front panel switch is available. The IC-271A

transmitter features 25W of transmitter power.

The IC-471A and the IC-271A both have options for computer interfacing. The ICOM BUS is brought out through an optional interface to the back of the radio. From this point, it may be routed to the ICOM computer

interface terminal, mounted in a matching box, that will convert the ICOM BUS to RS232C standard. Allowing computer control of both transceiver units, this capability, plus the antenna-tracking programs available for Oscar 10, will make the IC-271A and 471A Twins the ultimate for computer control of your satellite operations.

IC-290H/IC-490A Twins

ICOM's IC-290H and IC-490A mount together as a stackable, mountable pair that offers versatility, portability and satellite capability in an incredibly small size. These units are easily hung from your ham shack bench, taken on portable operations or used mobile.

Each features multiple tuning rates, memories, FM/SSB/CW, programmable scan and priority function, and an all-mode squelch. The IC-290H has a 25W transmitter, the IC-490A, 10W. Both of these transceivers are high quality designs by ICOM and offer all the flexibility needed for satellite operations.



IC-271A VHF Multimode 2 Meter / 10 Watts



IC-471A UHF Multimode 430 - 450 MHz / 10 Watts



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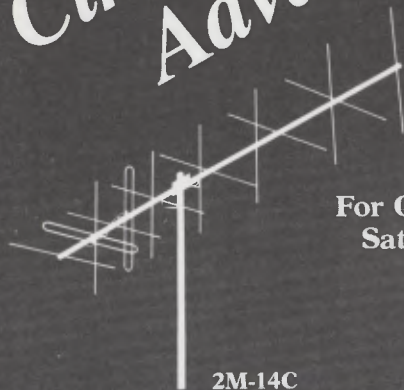
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The Circular Advantage



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KLM's Circular Polarized antennas have been specifically designed to optimize OSCAR 10 and Russian satellite operation. Quality workmanship and superior design, yield virtually perfect circular patterns over the satellite operational bandwidth. Enjoy less Multi-Path Distortion, less Flutter, Fade, and better S/N Ratios, with comparable performance on transmit.

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GAIN: 11 dBdc	VSWR: 1.2:1
BEAMWIDTH: 48°	WINDLOAD: 1-25 sq. ft.
FEED IMP: 50 ohm unbal.	WT. (LBS): 7.5
BALUN: 4:1,2KW	ELLIPTICITY: 3 dB Max.
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The 435-18C is a star performer, an optional CS-2 circularity switcher puts left, and right-hand circular control in your shack, and doubles as a two port divider/impedance transformer for single feed line convenience.



435-18C

Specifications: (435-18C)

BANDWIDTH: .. 420-450 MHz	GAIN: 12 dBdc
BOOM LENGTH: 7.3 ft.	VSWR: 1.5:1
BEAMWIDTH: 44°	FEED IMP: 50 ohm unbal.
WT. (LBS): 4.5	BALUN: 2-4:1, 1KW
MAST DIA: Cen-Rear/1 1/2"	ELLIPTICITY: 3dB MAX.
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Our Cover: The 43-meter (140-foot) Radio Telescope at the National Radio Astronomy Observatory, Greenbank, W. Va., Site of the May '83 Jansky/NRAO/AMSAT two-meter EME operation (K8HUH et al).

Here's the easiest, lowest-cost way to use the OSCAR 10 Satellite



New TEN-TEC Satellite Station.

It's easy. The new TEN-TEC Model 2510 simplifies station assembly, reduces the number of interconnections, and makes operating easier.

It's low cost. Eliminates buying separate converters and another HF rig.

It's full duplex. The 2510 is a 435 MHz, 10-watt SSB/CW transmitter and a 2-to-10 meter receive converter all in one package to give you full duplex transmit/receive functions in Mode B. It converts your HF station into an OSCAR station!

Just add antennas, rotators, a 100-watt "brick," and go. The 2510 transmitter section has a frequency range of 435 to 435.5 MHz (up to 437 MHz with optional board), adjustable ALC, and full controls. Main Tuning sets uplink frequency. Spot Control helps find your downlink signal. Drive Control, Microphone Gain, Band Switch, and Push-Button switches complete the front panel. Push-Button switches are: DUPLEX/MUTE (for duplex operation or for disabling receive converter during transmit); CW/SSB selects mode; USB/LSB selects sideband. The receive converter frequency coverage is 144 to 146 MHz (converted to 28 to 30 MHz) with dynamic range of 85 dB typical. Rear panel connectors are provided for antennas, amplifiers, key, 12Vdc input, and HF receiver.

Enjoy the most exciting event in Amateur radio today—with the new TEN-TEC Satellite Station. See your dealer or write for information to TEN-TEC, Inc. Sevierville, TN 37862.

Here's all you need to use OSCAR 10

1. TEN-TEC Model 2510 Satellite Station (requires 12Vdc @ 2A).
2. Your present 10-Meter transceiver or receiver.
3. 2-Meter, circularly polarized antenna, 10 dBi gain or greater (Cushcraft, KLM).
4. 435 MHz, circularly polarized antenna, 12 dBi gain or greater (Cushcraft, KLM).
5. Optional 50-100 watt 435 MHz linear amplifier (Mirage, Tokyo High Power).*
6. Rotators for azimuth and elevation (Alliance, Hygain/Telex, Spectrum West).
7. 12Vdc power source capable of supplying all equipment requirements.

*Output power requirements: refer to April 1983 QST. AMSAT recommends 500/1000 Watts ERP (effective radiated power) on 435 MHz. For example: 100 watts into a 12 dBi gain antenna yields 1000 watts ERP (assumes 2 dB feedline loss).

