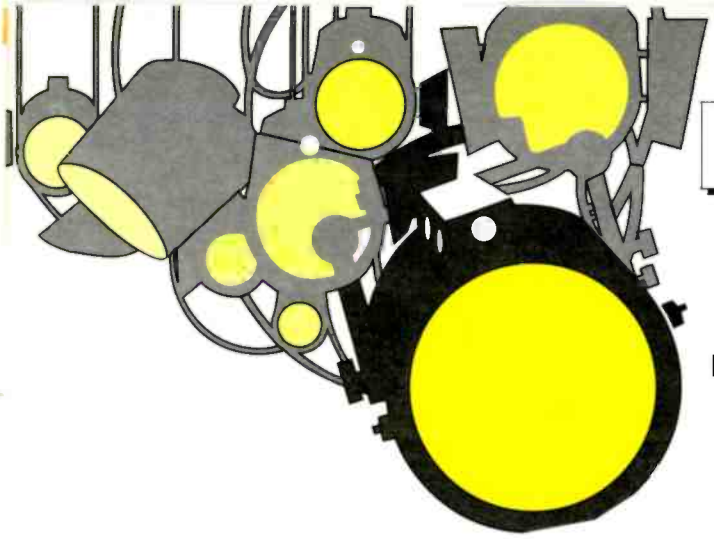

product spotlight

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POP'COMM REVIEWS PRODUCTS OF INTEREST

Midland 79-290 AM-USB/LSB WX CB Transceiver

Happy days are really here! Just within the last year or so, a number of exciting new transceivers have appeared on the market to fire up the reawakening CB hobby. **The Midland 79-290 AM/SSB** mobile CB radio is certainly one of these innovative units that takes CB transceiver design technology to absolute state-of-the-art. This microprocessor-controlled unit is definitively comparable in form and function to any top-of-the-line amateur or commercial mobile radio. The 79-290 is for the *serious* CB communicator, though it will thrill the heart of the most modest 11-meter aficionado.

Midland's new 79-290 AM/SSB mobile CB is simply a great transceiver.

The transceiver unit measures approximately 2 inches high, by 6-1/4 inches wide, by 7 inches deep. The entire unit is black, including the sleek face panel and controls. This is a full AM and single sideband radio, with all 120 channel configurations. Of course, it runs the full legal output power of four watts on AM and a nifty 12 watts on upper or lower sideband. Again, the max. It has a 10-channel VHF weather band monitor, too. The speaker is bottom-firing, and tone and clarity are excellent. The unit is housed in metal, which is always a good idea for RFI-resisting purposes, especially on a mobile rig. At the back are the antenna connector for the standard PL-259 connector, and an external speaker jack. The back is a cast metal ribbed heat sink for extended SSB transmit operation duty cycle, as found on *commercial* two-way radios. This baby is no toy!

The nicest and most functional features of Midland's 79-290 are found right at the front panel. This is a masterpiece. The black panel has a huge black matrix liquid crystal multifunction display at the center. There are three knob combinations at either end, with an array of various function buttons surrounding the LCD panel left, right, and below it. The operator can choose between channel display or actual frequency display in megahertz on the LCD. Numerals are large and easy-to-read, even in a moving vehicle. The LCD display and the labels on its surrounding function buttons are nicely backlighted when the rig is powered up. Illuminated rings surround each control knob as well. The 79-290 is a real pleasure to operate at night, or in low light. No more guessing if you are reaching for the right button! What could be better? The 79-290's detachable faceplate for security. The center portion of the faceplate, which contains the LCD and in fact, the unit's CPU and its rechargeable memory battery, is removable. The removed panel can be placed in a protective box, included with the radio.

Looking directly at the front panel, the mic jack is at the lower left corner. Directly above that, is an inner-outer volume and squelch control knob assembly. The squelch is the outer ring, and the combination power switch and volume control is the protruding knob. The knob at the upper right is the channel knob. Below that, is another inner-outer knob assembly. Here, the outer ring is a coarse clarifier, sometimes known as delta tune or receiver incremental tuning (RIT), and the protruding ring is a fine clarifier. Talk about precision receive tuning! To the left of the LCD, at the top, is a red TX indicator lamp. Below that, three function buttons. From top down, they operate instant weather (WX), instant Channel 19 (CH19), and last channel recall (LCR). To the right of the display, the front panel release button is up top. As on the left, there are three function buttons here, too. From top down, there is the band selector (BD), which may be better described as a mode selector. Its purpose is to sequentially select among AM, upper sideband, and lower sideband. Below

"What could be better? The 79-290's detachable faceplate for security!"

that is an instant Channel 9 button (CH9) for convenience when a quick change to emergency status is necessary. Below again, is the frequency display button (FRQ). This toggles the display between your choice of channel or frequency.

Eight more buttons appear across the bottom of the display. From left to right, there is a local button (LOC) that switches to a fixed level of reduced receiver gain. The microphone transmit button (MIC) is next to the local button. This reduces the microphone power level in the transmit mode from "boosts TX output" to a fixed level for those times when you might want to back off from the maximum legal modulation limit just a bit. For example, this ensures that your signal does not splatter and blow away the wife and kids following behind you in the other car on a big ski trip to the mountains. Four channel memory buttons are centered under the display. These memory presets can be set to your favorite channels for instant access without having to spin the tuning knob around. Next, is a really nice scan feature button (SC). This function stops on any channel breaking squelch, then delays on channel for 10 seconds after the signal disappears before resuming the scan. This gives the operator time to answer a call heard. Touching the button again exits the scan mode. Farthest on the right is a dual watch control button. The dual watch allows simultaneous scanning of any two CB frequencies, another outstanding feature.

A Look At The Midland 79-290's LCD Display

The LCD display gives a wealth of operational information. It is the command center of the 79-290. Four indicators for the four channel memory buttons line up on the left of the display. The large frequency/channel display area is topped with indicators for AM/USB/LSB modes, WX mode, reduced mic gain mode, and local RF gain mode. There are additional indicators for transmit (TX) and the dual-watch function. To the right, there is a large S/RF bar graph with a sweeping upward curve. This is no mere five or six segment graph, but a continuous sweep of vertical bars for a precision reading. The scale is calibrated in proper "S" units. The only drawback noted for the entire functionality of this fine unit is that the S scale tends to read very high or even top out when the noise floor is high. This may give the impression that the receiver is susceptible to noise, but not so. This appears to be only an inconsequential calibration issue.

As one would expect, for a radio in its class, the 79-290 is feature rich. It has full-time, full-stage noise blanking. An automatic gain control (AGC) is always active as well, providing nearly 10 dB change in audio for 10 to 100,000 (v input levels.) The high performance CPU boasts "pinpoint channel selection and self-adjusting frequency operation." They're not kidding. In testing, the clarifier control was rarely needed for SSB operation. It was useful for separating co-channel stations on SSB, as well as AM. In fact, the clarifier even works on the weather band, making it possible to tune out second, distant, WX stations on the same frequency. According to product literature included with the tested unit, receiver sensitivity is rated at a respectable 0.50 (v on AM, an excellent 0.25 v) on SSB. The unit has a dual-conversion receiver, with adjacent channel rejection rated at 60 dB for AM and SSB, intermodulation distortion for SSB 3rd order >-25 dB, 5th order >-35 dB. SSB carrier suppression is 55 dB, with unwanted sideband rejection at 50 dB. Audio frequency response is 350 to 2500 Hz on AM. The audio output is four watts into eight ohms.

True 11-Meter Communications Rig

Test driving the Midland 79-290 was a delight. A band opening provided a multitude of reception from stations in Canada riding the skip into the southeastern U.S. on SSB in the "upper 40." Testing was done using a 108-inch whip, rear quarter-panel mounted on a sport utility vehicle, with measured SWR at a perfect

Adventist World Radio DX Contest Results

For the fifth time over a period of 13 years, a New Zealander is the world winner in the annual DX contest conducted by Adventist World Radio. He is Mr. Ron Killick of Christchurch in the south island of New Zealand and he has amassed a remarkable total of more than 67,000 QSLs during the past 45 years.

Ron Killick's very large collection is made up mainly of aircraft QSLs, though he also possesses a large number of shortwave, mediumwave, and FM QSLs as well. Ron is the current editor of "Tune In," the regular bulletin of the New Zealand DX Radio Association. He was awarded the 1999 Bronze Medallion and a deluxe copy of Jerry Berg's new book, *On the Short Waves*.

The 1999 DX contest was conducted in conjunction with the AWR DX program, "Wavescan," which invited listeners to submit details of large QSL collections and to describe the longest time they waited to receive a QSL. The "Longest Wait" is 31 years; that's how long Karl-Erik Stridh in Hoganas, Sweden, waited to receive a QSL card from the ship station, Radio Syd. In a strange set of circumstances, he heard the station as a youth, and received a QSL card from one of the staff he befriended 31 years later.

Don Moore in the United States has a total of more than 28 QSLs exhibiting the "Long Wait." In some cases, he later visited the station in Latin America and collected the QSL personally. The other Continental Winners are: Ivan Lopez Alegria in Mexico, Madan Mukherjee in India, and David Gordon in South Africa.

Adventist World Radio also honors a young brother-sister team in Hungary who have a total of just 17 QSLs between them, and a new DXer in the United States who began collecting QSLs only last February.

Wavescan expresses appreciation to each international radio monitor who took part in the contest, and also for the several hundred radio cards that have been added to the AWR Historic Collection. In due course, all specially endorsed QSL cards together with the QSL stamps will be sent out, and those who qualify will receive their special awards.

". . . the clarifier control was rarely needed for SSB operation."

1:1. SSB reception stayed locked on frequency. In the local (LOC) mode, there was no need to use the squelch at all. Effectively, any station more than about a half-mile away fades quietly, with those nearby booming in. During testing, local mode was found to be excellent for Channel 19 highway use, and *totally* cut out all skip and other unwanted noise, even on days of known high solar disturbances. Then, with another touch of the LOC button, the receiver is back to regular DX operation. When operating this unit, forget about the term "CB radio." The 79-290 is a *true 11-meter HF communications rig*. Given the 12-watts of power on sideband, the SSB operator has surpassed that arbitrary 5-watt "QRP" "low power" barrier. For the seasoned CBer, or for the no-code amateur ready to get a feel for HF sideband operation, this unit is the one to have. It would look great mounted above or below your favorite 2-meter rig, especially since the 79-290's style handsomely complements the styling of many VHF/UHF amateur mobile rigs today. Now that a formal petition has been filed with the FCC to propose allowing 11-meter CB DX communication beyond the present 155-mile DX limit, sideband CB operation could become a lot more exciting in the future. Think CB radio is a technological anachronism? Think again. The SSB mode is the one analog mode seriously challenging digital voice technology in the world of commercial communications radio. SSB is superior in spectral efficiency and energy efficiency. Midland's 79-290 is the 11-meter rig of choice, in everyday use by the digital cellular engineer conducting this "Product Spotlight!"

For more information on Midland's 79-290 mobile CB that retails for $259.95, contact Midland Consumer Electronics, 1670 North Topping Avenue, Kansas City, MO 64120-1224, or E-mail them at <midlndCB@tfs.net>. And for all Midland's CB products, visit them on the Web at <http://www.midlandconsumerradio.com>. ■

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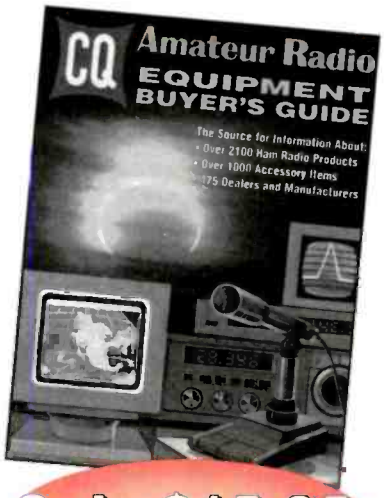

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