# The Poor Man Investigates ... the World's Worst World Receiver?

By Eric Bryan

he Bell + Howell 9 Band World Receiver is an analog-tuned pocket radio with MW, FM, and seven shortwave bands. It has the extended FM band and covers the 49, 41, 31, 25, 22/21, 19, and 16 meter bands. This radio first appeared several years ago, and can occasionally be found used or new for about \$10. I bought one at a garage sale for 50¢ (batteries included!).

When I first saw it, I remembered the horrendous reviews the radio has received over the years. Many were the most vitriolic, negative reports I'd ever seen of a pocket shortwave set. There seemed to be passionate hatred for this receiver amongst the radio hobby crowd.

It's been my experience that the writers of the most extremely negative reviews of low-cost, pocket shortwave radios dismiss them out of hand with knee-jerk reactions based on comparisons with high-end equipment. It also seems apparent to me that often the writers of these reviews simply didn't try very hard to get performance out of the cheap radio in question. They usually describe a cursory run through the bands leading to a quick consignment to the junk drawer

I thought that seeing what a cheap pocket set can do required more patience than that. And now that I had one of these models virtually for free, I was curious to put it to the test and see for myself if these rancorous reviews were justified. Is this really the pocket shortwave radio from hell? Is it truly, a piece of junk which you should avoid? Or, if you haven't managed to avoid it, should you immediately throw yours away as some reviewers advised?

Bearing in mind that this radio usually went for about half the price of the Grundig Mini 100PE or the Kaito WRX911, I wanted to see what just what it could do. Here's what I found.

### Features

The radio measures roughly 5"x 3"x 1" and runs on two AA batteries. The 21-inch telescopic antenna, which folds down onto the top of the cabinet, swivels side to side but doesn't rotate. On the left side there is a center-negative DC3V power jack, an earphone jack, and the volume/on/off switch.

A tuning knob and wrist strap are on the right side of the cabinet, and a small world time zone map is on the back (requires a magnifier for use). On the front of the radio are AM/SW and

FM selector buttons, and a vertically oriented analog dial face. Mediumwave and a dial scale are on the left, followed by the 49 to 16 meter shortwave bands, with the FM band on the far right of the scale.

At the base of the dial face is a red LED signal strength indicator, a green LED MW/SW indicator light, and a red LED FM/TV light.

On the top of the cabinet above the dial face is a slider switch to select mediumwave or any of the shortwave bands 1-7. Although, as will be seen, the information was of limited use, the frequency range of the shortwave bands as listed on the dial face are shown in Table 1.

#### **TABLE 1: FREQUENCY COVERAGE**

49 meters	5.90-6.90 MHz
41 meters	6.90- 8.10 MHz
31 meters	9.30-10.30 MHz
25 meters	11.60 -13.50 MH
22/21 meters	13.00 -15.00 MH
19 meters	14.80-16.50 MH

## Performance

When first firing up this little receiver in the middle of the day local time, I was able to tune WWV on 10000 kHz without much trouble. I was happy to see the calibration here was correct, with the needle straight across 10.00 MHz. Unfortunately, the calibration further down 31 meters quickly became extremely inaccurate.

On my Degen DE1103 I could hear CBC Quebec on 9625 kHz, despite the adjacent REE via Costa Rica on 9630 kHz, I wanted to try



the same on the Bell + Howell. I wish I could have! The frustrating thing was that 31 meters bottomed out at 9630, despite the dial setting reading 9.30 MHz. REE sounded good, but I could not tune below that to see if this little unit could pull out CBC next to it.

From the reception capabilities I found on this radio, CBC 9625 should have been listenable had I been able to tune the radio to this frequency.

Tuning was a little stiff, and some rocking back and forth was necessary to settle correctly on the desired frequency. For the most part, signals were not crammed together or difficult to separate.

In the late afternoon I found Radio Australia on 17795 kHz with a decent signal using the whip. Clipping on the wire made the broadcast easily listenable and enjoyable. But here again frequency calibration was an issue: The dial read somewhere around 18.40 MHz – fairly atrocious, but endemic with some of these small analog sets

made over the last decade or so.

Calibration on 19 meters was similarly poor, with WWV 15000 kHz just squeaking onto the band well below 14800 kHz, and the Voice of Russia on 15425 kHz appearing at 15800 kHz. That's horrendous, but hearing VOR in English with room-filling sound and quality is making me feel very good about that 50¢ expenditure. It really sounded quite nice and clear as I sat there listening to a program covering the Greek economy, with the red tuning LED glowing on and off with the good signal.

As I explored the bands and sampled these broadcasts, the radio exhibited a moderate frequency drift. When settled on a frequency, such as that of the Voice of Russia's English broadcast, I found I needed to retune frequently,



**BELL+HOWELL 9 BAND WORLD RECEIVER** 

but not constantly.

In experimenting to find the best shortwave reception, I alternated between using the whip and clipping on a short indoor wire. In some cases reception quality was excellent with the wire detached, and sometimes the set would overload with the wire

clipped on. A more efficient method for dealing with over-strong signals was to simply leave the wire antenna attached and flip the DX-Local switch to Local.

If a signal was suffering from interference, reception quality could often be improved by

switching between the antenna and DX-Local selection. However, when switching the selector to Local, I found the set did need a substantial volume increase to compensate for loss of signal strength.

One oddity with this radio is that when tuning through 49 meters in particular, the band appeared more or less dead if I was holding the radio while tuning. When I set the radio on the table and kept just enough fingertip pressure to prevent it from falling over while I tuned, the band came to life. While writing this review, Arnie Coro's DXers Unlimited was coming in well over RHC on 6010 kHz with the radio sitting on the table. But, if I picked the receiver up the signal all but disappeared.

In local mornings, when looking for Voice of Korea in English on 25 meters, several extremely strong signals made separating some of the channels difficult. North Korea was easily heard on my DE1103, so the Bell + Howell's limited selectivity and dynamic range when confronted with a band crowded with strong broadcasts was made apparent in this case.

Images were certainly present, as you'd expect on a budget, single-conversion radio and typically appeared in the band below the actual band of broadcast. The Voice of Russia from 19 meters

showed up at the top of 22 meters, and WHRI from 41 meters presented itself somewhere above 49 meters. Sometimes the image offered better reception, providing an "optional frequency" if the real channel suffered from interference.

# Mediumwave

Scanning the mediumwave band after sundown and working off the internal ferrite bar antenna, I found KGO San Francisco was easily heard with a strong signal. I also received stations from Vancouver, Nevada, and other neighboring states. Calibration was a bit off on this band, but usable.



# FM Broadcast Band

Reception of FM stations was very good on this little set. Using a quality pair of earphones, I found the audio to be in mono, but clear and rich on strong signals. Even the lower-powered college

stations which carry NPR and local, commercial-free programming came in with listenable signals. The FM band was packed with stations and, other than a lack of a stereo option for earphones, I can find no fault with reception on this band. The dial calibration of the FM band was quite good.

### Verdict

Of all these inexpensive pocket analog shortwave sets I've tried, the one that was initially the most surprising and the most fun was the Grundig Mini World 100PE. To be able to hear Radio Bulgaria and many others off the whip out of such a tiny device seemed amazing.

On the Grundig 100PE, I logged most of the Central and Eastern European international broadcasters, Channel Africa, all of the usual heavy-hitters, and even hams in AM mode from Maine and elsewhere. The only real drawback of the 100PE was an IF issue on 49 meters, making the use of a clip-on wire antenna problematic on that band.

I had overall reception results with the Kaito WRX911 equivalent to those of the 100PE, though without quite as much fun. But this Kaito radio had more shortwave spectrum coverage than the Grundig, and it was free of the IF troubles on 49 meters. It was the combination of extreme compactness and surprising performance

which made the 100PE so much fun and enjoyable

Though taking into account the somewhat poor reception conditions present while I tried out the Bell + Howell radio, I think it's a bit behind the Grundig and Kaito in performance on shortwave. Sensitivity is not bad. Keeping in mind it was selling for around \$10, there's not that much wrong with it for that price.

The three obvious disadvantages of this radio are:

 The band limitations, with 31 and 49 meters bottoming out way too high and so leaving large portions of the bands uncovered. • The atrocious calibration in most areas of the shortwave bands. Both the Kaito and Grundig radios suffered from calibration inaccuracy in portions of the shortwave bands, but the Bell + Howell stretches this to extremes.

• The deadening of 49 meters when the radio is held in the hand. This is a major drawback for a pocket radio,

which obviously would see much handheld use in normal operation.

The FM performance of this radio was among the best of all the pocket receivers I've tried. I found the FM reception results of the Bell + Howell comparable to that of the Kaito KA105, a digital PLL-tuned pocket MW/SW/FM radio.

I don't think, based on some of my monitoring of shortwave broadcast signals, that this radio is actually junk or should not qualify as a "radio" as some other reviewers have said. If it were all I had, I would feel fortunate to be able to listen regularly to the English programming from Russia and New Zealand and (I'm sure) Croatia and many other places. For the usual price it went for, it's not that bad.

As slight as a \$10 analog pocket shortwave set may seem to some, it is still a powerful tool to mentally step outside of your culture and get in touch with sounds, voices, ideas, and music from other lands. This modest  $50 \phi$  garage sale Bell + Howell still provides a means to escape the high-pressure babbling of commercial radio, and to experience virtual travel to far away points around the world. We shortwave enthusiasts know that is no small thing.



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