

# What's NEW

Tell them you saw it in Monitoring Times

## Uniden News

According to Uniden officials, the electronic updates to facilitate reception of those 800 MHz trunk radio systems which are being rebanded are now available on the internet for nine of their scanner models. Once these updates are loaded into the appropriate scanner, the user will have no problems once a public safety trunk system is rebanded and the new frequencies are entered into the scanner.

The Uniden scanners that can have their firmware updated for 800 MHz rebanding includes: BC246T, BCT15, BCD396T, BCD996T, BCT8, BC898T, BC296D, BC796D, and BR330T scanners.

For more information on these updates go to <http://info.uniden.com/twiki/bin/view/UnidenMan4/ScannerManuals>

In an related story, sometime this summer after the DTV conversion, the FCC plans to open up the 700 MHz Block D spectrum (758-763 MHz) for public safety auction. We have been told by two different sources that current scanners should be able to receive those frequencies after test units have been recertified by the FCC for the new frequencies. Our sources indicate that this will be done as a firmware update sometime in the future.

## New Icom Transceiver Announced

Icom has announced a new transceiver that will replace their popular 756 series radios – the Icom IC-7600.

This transceiver covers the 160 to 6 meter amateur bands. It utilizes Icom's proven IF-DSP technology and features selectable roofing filters at 3kHz, 6kHz and 15kHz.

Like the IC-7700 and IC-7800, the IC-7600 uses dual 32-bit floating-point Texas Instruments DSP chips -- one for the radio and the other for the spectrum scope.

The radio has a 104dB dynamic range, and +30dbm 3rd order intercept point is achieved on the HF bands. It uses a double superheterodyne receiver with an image-rejecting 2nd mixer circuit for improved handling of in-band intermodulation distortion.

The 5.8 inch (diagonal) color WQVGA display has a quick-start LED backlight and views well from any angle and you can even program your startup screen. Dual frequency watch is available with same band operation. There is a built-in RTTY and PSK31 encoder/decoder.

All the creature comforts that hams have come to expect from Icom are included – Band-pass tuning, receiver and transmitter incremental tuning, keypad, 24 hour clock-timer, 101 memories and multiple scan modes. There is also a built-in voice recorder and voice synthesizer (English/Japanese selectable) and it even has two USB ports. The front panel USB port is for keyboard or memory drive (not supplied), and one on the rear panel for PC control and audio.

This radio has six transmit meter functions and three meter display modes, plus a meter output jack on the rear panel.

There is both a mechanical relay (16V/0.5A) and FET relay (250V/200mA) for keying an external amplifier. Separate RX-OUT and RX-IN antenna ports are provided, allowing connection of external preselectors, multicouplers etc. There is even a transverter port for adding other VHF/UHF band capability. The radio requires 13.8 VDC at 23 amps.

At presstime we do not have any information on availability or pricing information. Most Icom amateur radio dealers have indicated that they will carry this radio.

Published specifications from Icom for the IC-7600:

### General

- Frequency coverage:
  - Receive – 0.030–60.000 MHz (Depending on version)
  - Transmit – 1.800–1.999, 3.500–3.999, 5.33050, 5.34650, 5.36650, 5.37150, 5.40350, 7.000–7.300, 10.100–10.150, 14.000–14.350, 18.068–18.168, 21.000–21.450, 24.890–24.990, 28.000–29.700, 50.000–54.000 MHz (Some frequency bands are not guaranteed and coverage depends on version.)
- Mode: USB, LSB, CW, RTTY, PSK, AM, FM
- Number of memory channels: 101 (99 regular, 2 scan edges)
- Antenna connector type: SO-239 ' 2 and phono jack (RCA; 50 ohm impedance)
- Temperature range: 0\_C to +50\_C (+32\_F to +122\_F)
- Frequency stability: Less than ±0.5 ppm 5 min. af-

ter power ON. (0\_C to +50\_C; +32\_F to +122\_F)

- Frequency resolution: 1 Hz
- Power supply: 13.8 VDC ±15% (negative ground)
- Power consumption: Transmit – Max. power 23 A; Receive – Standby 3.0 A; Max. audio – 3.5 A
- Dimensions: 340 (W) x 116 (H) x 279.3 (D) mm (projections not included) 13 3/8 (W) x 4 9/16 (H) x 11 (D) inches
- Weight (approx.): 10.0 kg; 22 lbs.
- ACC 1 connector: 8-pin DIN connector
- ACC 2 connector: 7-pin DIN connector
- CI-V connector: 2-conductor 3.5 (d) mm (1€8")
- Display: 5.8-inch (diagonal) TFT color LCD

### Transmitter

- Output power: (continuously adjustable) SSB/CW/RTTY/FM – Less than 2 to 100 W; AM – Less than 1 to 30 W
- Modulation system: SSB – Digital PSN modulation; AM – Digital Low power modulation; FM – Digital Phase modulation
- Spurious emission: HF bands – Less than –50 dB; 50 MHz band – Less than –63 dB
- Carrier suppression: More than 40 dB
- Unwanted sideband: More than 55 dB suppression
- Microphone connector: 8-pin connector (600 ohm)
- ELEC-KEY connector: 3-conductor 6.35 (d) mm (1/4")
- KEY connector: 3-conductor 6.35 (d) mm (1/4")
- SEND connector: Phono jack (RCA)
- ALC connector: Phono jack (RCA)

### Receiver

- Receive system: Double superheterodyne system
- Intermediate frequencies: 1st – 64.455 MHz; 2nd – 36 kHz
- Sensitivity (typical):
  - SSB, CW, RTTY – 0.15 µV (1.80–29.99 MHz) (10 dB S/N) BW=2.4 kHz/0.12 µV (50.0–54.0 MHz)
  - AM (10 dB S/N) – 6.3 µV (0.1–1.799 MHz) BW=6 kHz/2 µV (1.80–29.99 MHz)/1.6 µV (50.0–54.0 MHz)
  - FM (12 dB SINAD) – 0.5 µV (28.0–29.99 MHz) BW=15 kHz/0.3 µV (50.0–54.0 MHz)
- Squelch sensitivity (Pre-amp: ON): SSB – Less than 3.2 µV; FM – Less than 0.3 µV
- Selectivity (IF filter shape is set to SHARP):
  - SSB (BW: 2.4 kHz) – More than 2.4 kHz/–6 dB, Less than 3.8 kHz/–60 dB
  - CW (BW: 500 Hz) – More than 500 Hz/–6 dB, Less than 900 Hz/–60 dB
  - RTTY (BW: 350 Hz) – More than 350 Hz/–6 dB, Less than 650 Hz/–60 dB
  - AM (BW: 6 kHz) – More than 6.0 kHz/–6 dB, Less than 15.0 kHz/–60 dB
  - FM (BW: 15 kHz) – More than 12.0 kHz/–6 dB, Less than 20.0 kHz/–60 dB
- Spurious and image: More than 70 dB, rejection ratio (except IF through on 50 MHz band)
- AF output power : More than 2.0 W at 10% (at 13.8 V DC) distortion with an 8 ohm load
- RIT variable range : ±9.999 kHz
- PHONES connector : 3-conductor 6.35 (d) mm (1/4")
- External SP connector : 2-conductor 3.5 (d) mm (1/8")/8 ohm
- DSP ANF attenuation : More than 30 dB (with 1 kHz single tone)
- DSP NR attenuation : More than 6 dB (noise rejection in SSB)

### Antenna Tuner

- Matching impedance range:
  - HF bands – 16.7 to 150 ohm unbalanced (Less



# What's NEW

Tell them you saw it in *Monitoring Times*

than VSWR 3:1)

- 50 MHz band – 20 to 125 ohm unbalanced (Less than VSWR 2.5:1)
- Minimum operating input power – 8 W (HF bands)/15 W (50MHz band)
- Tuning accuracy – VSWR 1.5:1 or less
- Insertion loss – Less than 1.0 dB (after tuning at RF power 100W)

There are several ways to view an English pdf of the operating manual. Going to [www.icom.co.jp/world/index.html](http://www.icom.co.jp/world/index.html) and using the search function for IC-7600 will give you the option to download the manual when you click on the user's agreement.

## FLEX-3000 SDR Now Available

The FLEX-3000 from FlexRadio Systems is a scaled-down software-defined radio from the makers of the FLEX-5000. Designed for portable and fixed operations, the FLEX-3000 fits in a laptop-computer case. It measures 12.25 x 12.25 x 1.75 inches and weighs in at 7 pounds.



The FLEX-3000 is a 100 watt, 160-6 meter all mode transceiver that connects to your computer via a FireWire connection. A built-in automatic antenna is included at no additional cost. Retail price is \$1599.00. For more information visit [www.flex-radio.com](http://www.flex-radio.com).

## Grundig Releases a Passive Antenna

For AM broadcast band (540-1700 kHz) portables, nothing peeps up a portable's reception like an external loop antenna. And now Grundig has introduced a new antenna for AM broadcast band enthusiasts. The Grundig AN200 is a passive, fully adjustable indoor antenna for the AM broadcast band. It is a low cost, nine inch diameter, tunable ferrite loop antenna.

Inductive coupling makes it easy to use with most portables that have an AM Ferrite bar antenna. Simply placing this antenna near the radio will improve reception. You just adjust the AN200 tuning knob for maximum gain. There is



also an output jack for a "wired" connection to radios with AM antenna terminals. The supplied cable has a 3 conductor 3.5mm plug at one end, and bare wires at the other end.

The AN200 (ANT59) is available from Grove Enterprises for \$29.95 plus shipping and handling.

## Monitoring Times Back Issues in Sets

Grove Enterprises has put together a lightly-used archive of *Monitoring Times* magazines to be sold by year (volume) only, at \$19.95 plus \$5 shipping USPS per set. To order, email [order@grove-ent.com](mailto:order@grove-ent.com) or call 1-800-438-8155 and specify which year(s) you wish to purchase.

To see what topics were covered, click on [www.grove-ent.com/mtbackissues.html](http://www.grove-ent.com/mtbackissues.html) to view the yearly index. These sets will not be broken. If you wish to purchase individual back issues to complete your own sets, call 1-800-438-8155 to see if those issues are available from our limited archives.

## MT Anthology DVD

Another way to get back past issues of *Monitoring Times* is now electronically on DVD. Grove Enterprises has released the ultimate radio reference: the past 10 years of *Monitoring Times* magazine all on one DVD! This remarkable tool has the full information contained from every issue of since January 1999.

All of the articles are fully indexed and searchable. Frequencies and text can be copied and pasted into any compatible program. All the pages are in high resolution and full color! And all of this material is available for only \$79.95 plus shipping and handling (order SFT27-DVD). You can order online at [www.grove-ent.com](http://www.grove-ent.com) or call 1-800-438-8155.

## Perseus Databases

If you are looking for some databases to use with your Perseus SDR receiver, you might want to check out this URL on the Free File Sharing website: [www.4shared.com/dir/5567845/166a39bd/sharing.html](http://www.4shared.com/dir/5567845/166a39bd/sharing.html)

There are two versions of the database and both are compressed using the .rar file protocol/ You will also find an interesting pdf file, Perseus Third Party Software Guide v11, available for download on the same webpage.

Best of all, it is all available for "free."

## UCS Releases New Satellite Database

A new version of the Union of Concerned Scientists Satellite Database, which includes launches through January 1, 2009, has been posted at [http://ucsusa.org/satellite\\_data-](http://ucsusa.org/satellite_data-)

**base.** There are currently 905 active satellites in the database.

The new Excel format file is called "UCS\_Satellite\_Database\_1\_21-09.xls" and the tab-delimited text version is called "UCS\_Satellite\_Database\_1-21-09.txt".

The versions in which the "Name" column contains only the official name of the satellite (in the case of government and military satellites) and the most commonly used name (in the case of commercial and civil satellites) are called "UCS\_Satellite\_Database\_officialname\_1-21-09.xls" and "UCS\_Satellite\_Database\_officialname\_1-21-09.txt".

The Database page has been newly organized for easier navigation, and it has several new features, including some analysis:

- "Satellite Quick Facts" box, giving current satellite counts, updated quarterly, and
- "Quick Facts & Analysis" page, explaining the derivation of the Satellite Quick Facts and answering some more in-depth questions, updated occasionally.

- Also new to the Database page are:
  - "Quick Guide to Using the Database," a how-to for several basic database tasks
  - "Featured Satellite," detailing one of the interesting active satellites in the database, updated quarterly.
  - Link to the new "Space Age Trivia" page, highlighting interesting facts about space, past and present, updated quarterly.

The other changes to this version of the database include:

- Reorganization of the orbital information into columns with "Class of Orbit," e.g., LEO, and "Type of Orbit," e.g., Sun-Synchronous. All GEO longitude information has been moved to the column "Longitude of GEO"
- The addition of 20 satellites
- The deletion of 14 inactive satellites
- The addition of and corrections to some satellite data
- The updating of the orbital information for the GEO satellites

And I forgot to mention the cost – Yes, again, absolutely free.

## Another HF Receiver Company Gone

It would appear that JRC has completely withdrawn from the HF receiver marketplace. According to company sources, their NRD-630 receiver is no longer being sold, leaving them with no HF tabletop radio in the marketplace. So it would appear that JRC has followed in the footsteps of Drake and will no longer make any HF radios for the radio hobby.

Books and equipment for announcement or review should be sent to What's New, c/o Monitoring Times, 7540 Highway 64 West, Brasstown, NC 28902. Press releases may be faxed to 828-837-2216 or emailed to Larry Van Horn, [larryvanhorn@monitoringtimes.com](mailto:larryvanhorn@monitoringtimes.com)