

June 4, 2012



# Radio TechCheck



The Weekly NAB Newsletter for Radio Broadcast Engineers

## Arbitron Rolls Out a New PPM

Arbitron has begun using a new version of its Personal People Meter (PPM) system, called the *PPM 360*. The new client hardware distributed to PPM users (Arbitron calls them “panelists”) is significantly changed from earlier designs, and should provide both an improved user experience and better overall performance. It represents the most substantial upgrade that the automated radio-listener data recorder system has undergone since its original release in 2007.

Arbitron takes pains to note that its PPM data format, rules and collection and reporting processes are otherwise unchanged. Results reported by PPM 360-equipped panelists will remain fully interchangeable with data from the company’s earlier meters. In fact, both generations of meters will coexist in the field for some time, as Arbitron phases in the PPM 360. (Arbitron signs up PPM panelists for one or two-year terms, at the conclusion of which panelists return their meter hardware to the company. Hereafter, as new panelists come on board, PPM 360 hardware will be sent to them, and the old hardware will be retired.)



Unlike previous versions of the device, the PPM 360 incorporates a cell phone for reporting its results directly to Arbitron. This is a significant departure from past practice, in which data was only reported via a landline phone modem that only collected data from PPMs when docked in their rechargers in panelists’ homes.

The PPM 360 also takes greater advantage of off-the-shelf components, replacing formerly proprietary elements with a standard USB interface (for power supply and headphone adapter), for example. The meter also includes a longer-life battery (specified for 60-80 hours continuous use between charges), and greatly increased onboard memory. The latter was included to allow for a possible future shift to “audio matching” technology contemplated by Arbitron – which would require potentially long-duration recording of audio signals – as opposed to the current approach of simply storing binary data generated by the device upon detection of watermarks inserted in audio signals by broadcasters.

The new system also includes two wall-wart “beacons,” intended to be plugged in at two separate places within the panelist’s home. They communicate with the PPM 360 via Bluetooth, providing it with a unique signal that identifies the panelist’s home. (This is used by the PPM system to differentiate listening done at home from listening away from the home.) It replaces a proprietary communication from the earlier system’s data-collection hardware.

Other improvements in the PPM 360 include a smaller, lighter and more comfortable wearable device, along with an LCD status display, showing the panelist’s name (important when differentiating multiple meters in a household), current total of “carry points” earned by the panelist (these are used as incentives for the panelist to wear the meter as often as possible), and time-of-day. Also, because the PPM 360 includes a cellular transmitter, it requires an “airplane mode” switch to turn off its transmitter. The transmitter can be manually restarted by the panelist, but it automatically restarts when the meter detects its Bluetooth home beacon. Like the earlier system, the PPM 360 only reports data to Arbitron once a day, but unlike its predecessor, this reporting need not take place only while the panelist is at home.

For compatibility with data from the earlier-generation hardware, the PPM 360 uses the same microphone and accelerometer fitted in previous designs. Interestingly, the device’s microphone is the single most expensive component in the system, delivering hearing-aid quality performance, with the ability to detect watermarks in acoustical signals received at levels as low as 20 dB SPL. (This microphone’s cost of approximately \$10 is more than 30x the cost of typical communication-grade microphones used in cell phones.) The accelerometer is used to detect motion of the meter, to

verify that a panelist is actually wearing it (rather than the meter just sitting on a table next to a radio, for example). Accelerometer data collected from different meters is also compared to verify that a panelist is not wearing multiple PPMs.

The photo at right shows the PPM 360 package as sent to panelists, which is also smaller and less daunting than earlier packages. From left to right, the components include the charging dock, USB power supply (which can be connected to the dock or plugged directly into the meter for easier use while traveling), the PPM 360 meter, its USB headphone adapter cable and two Bluetooth home beacons.

Arbitron reports that PPM 360 distribution to new panelists began last month, with a market-by-market phase-in schedule that will continue over the next two years.



## IPAWS Webinar: Getting Ready for CAP: Countdown to June 30

On Wednesday, June 6 FEMA's IPAWS program in Partnership with the National Alliance of State Broadcasters Association (NASBA) and NAB will hold the next discussion in a continuing EAS Webinar Series. The webinar will be hosted by Manny Centeno of the Federal Emergency Management Agency (FEMA) and Suzanne Goucher of NASBA and the Maine Association of Broadcasters (MAB).

The Webinar will discuss what EAS Participants need to know to ensure they are prepared to receive alert messages in Common Alerting Protocol (CAP) and will include presentations on the following topics:

- Antwane Johnson, FEMA IPAWS Director, will provide an overall update on IPAWS developments
- IPAWS staff will discuss general EAS-CAP best-practices, EAS device configuration, and parallel operation of the EAS using traditional monitoring and CAP
- The Federal Communications Commission (FCC) will address recent changes to Part 11 Rules governing EAS and what State and local Emergency Communications Committees should be aware of as they update their State EAS Plans
- Whit Adamson, President of the Tennessee Association of Broadcasters (TAB) will share the steps he has taken to develop local officials' interest in using the EAS
- IPAWS staff will provide an update on the Primary Entry Point (PEP) Expansion Program

### Event Details:

What: FEMA IPAWS Special Event – Getting Ready for CAP: Countdown to June 30

When: Wednesday, June 6, 2012; 4:00 PM-5:00 PM ET

Where: WebEx (This link will only be active the afternoon of June 6)

<https://eiip.webex.com/eiip/onstage/g.php?t=a&d=922661163>

**NOTE:** The audio portion of the program will be delivered via your computer speakers. *Please review the instructions posted at: <http://www.emforum.org/WebExInstructions.htm> prior to the program.*

**Webinar Login:** The following login link can be used not earlier than 30 minutes prior to the scheduled meeting time: <https://eiip.webex.com/eiip/onstage/g.php?t=a&d=922661163> **The password is *attend*.**

Questions can be directed to the FEMA IPAWS email address: [ipaws@dhs.gov](mailto:ipaws@dhs.gov), Manny Centeno at [Manuel.Centeno@fema.gov](mailto:Manuel.Centeno@fema.gov), or Suzanne Goucher at [Suzanne@mab.org](mailto:Suzanne@mab.org).

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