Earth is singing like a whale, says NASA - Hear it now

Chris Taylor

Need some soothing sounds to put your Wednesday blues in perspective? We've got you covered. Grab your headphones and check out this hot new MP3 track from NASA, currently the number one hit across the universe:

That's the sound of the Earth "singing," as recorded by the awesomely-named Storm Probe mission — a couple of satellites investigating the famous Van Allen belts, intense radiation zones that surround our planet like a doughnut. The Storm Probes, launched last month, are mapping the density of charged particles.

The whale song is an audio rendering of radio waves captured by the Probes and caused by the two Van Allen belts, inner and outer. You don't actually hear the audio in space, of course, but the radio waves — known as "chorus" — are for real.

Ham radio operators have been hearing chorus in the background for years, but there's never been a recording this clear. "Our data is sampled at 16 bits, the same as a CD, which has not been done before in the radiation belts," says mission scientist Dave Sibeck. "This makes the data very high quality and shows that our instrument is very, very healthy."

The instruments may be, but chorus isn't. The soothing radio waves are used by loose electrons to gain energy, much like a surfer gaining speed on real waves — creating what NASA calls "killer electrons" that can harm humans and electronics.

Sibek’s next goal: use the two spacecraft in tandem to create a stereo recording of chorus. That should make for a truly killer sound.

Source URL (retrieved on *11/01/2014 - 4:54am*):
http://www.ecnmag.com/news/2012/10/earth-singing-whale-says-nasa-hear-it-now?qt-most_popular=0