

Re: How To Build Your Own Sputnik from the BBC

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[Sputnik] sent its famous ``beep beep" radio signals to earth, altering the transmission to indicate changes in temperature or a sudden drop in pressure caused by a puncture in the satellite's case. And that's about it.

I don't remember hearing of Sputnik being intended to signal any kind of data like temperature or pressure except by the way that changes in those conditions might alter the electrical properties of the equipment inside. It seems like that would have frustrated the attempts of (United States) people to project its orbit by the Doppler effect on its transmission as well, but I could easily have forgotten or missed descriptions of that complication in the past.

Supposedly, the Russians were working on a fancy satellite, which later was flown as Sputnik 3, but wanted to throw something simple and quick together to score being the first to orbit a satellite. So they built a simple transmitter and a set of batteries, probably using sub-minature vacuum tubes (as transistors were not at the time capable of running at 40MHz, one of the frequencies they used). And they used a pressurized environment to help cool it. And they decided to use some sort of pressure indicator to vary the rate of the beeping, to see if micrometeorites were common enough to puncture it. You want to know that before flying men up there. So that was the entire science mission IIRC.

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