National Capital Radio & Television Museum

Artifact of the Week:

LUFO Heat-Powered Radio



This week's featured artifact, circa 2000, called a "Light and Listen Radio," looks like a lantern, and it is, but it is also a heat-powered AM/FM transistor radio (contained in the black base). It employs a telescoping antenna seen on the right side. The tuning knob and volume control are installed in the base.

The copper assembly on top contains a number of thermocouples, which generate electricity when they are subjected to a temperature differential. (Physicists call that the Peltier-Seebeck effect.) The current generated by the hot thermocouples travels down wires in the blue side supports and into the radio at the bottom. With a radio like this, you never have to worry about batteries wearing down, but you do have to remember to bring lamp oil, matches, and perhaps a spare wick.

We have been unable to find information about LUFO, the obscure company that made these radios. It is probably a European-based firm, since ads for this radio were more common in Europe. They were marketed as a novelty item for campers. However, in post–World War II Russia, especially in remote villages in Siberia lacking utility-supplied electricity (where the nearest convenience store selling batteries might have been a day's journey away) people regularly used heat powered radios in their homes.



The second photo shows one of these, with a larger lamp hanging from the ceiling. Unlike the LUFO, the Russian approach was to have the radio in a separate package, with a power cord connecting the thermoelectric generator above the lamp to the radio. Since kerosene lamps were what people were using anyway, it made sense to use their waste heat ("free energy") to power a radio.

We appreciate your support of the museum so that historical artifacts like this one, and the stories that go with them, can be preserved for future generations. THANKS!