

Tools of the Trade**Explanation of Light and Audio Ranges**

By TnT Paranormal Investigators LLC

Audio Frequencies and Ranges

Gathering audio data during an investigation is the most common practice followed by most if not all paranormal teams. The reason being is to document if and when an entity communicates with us during an investigation. This communication comes in the forms of EVP's (Electronic Voice Phenomenon), ENP's (Electronic Noise Phenomenon), or DVP (Direct Voice Phenomenon; AKA Disembodied Voices).

What we are observing is that most of the EVPs and ENPs that we have documented are falling outside of the range that an adult human ear can hear without assistance. For adult humans, hearing is limited to frequencies between about 20 Hz and 20,000 Hz (20 kHz). Most EVPs/ENPs are falling below 20 Hz.

On the other hand, most generally children and animals can hear in more frequencies than adults. Some dog breeds can perceive vibrations up to 60,000 Hz with other species having a different range of hearing. The theory is that since children and animals can hear more frequencies they are more likely to hear an entity than adults do.

The reason we use digital recorders on our investigations is because they record and playback in all frequencies. During an investigation we will place digital recorders all around a location, as well as carry one with us. We then review the data from these recorders with the help of software, such as Audacity. Software such as this will help us to view the frequencies of the EVPs/ENPs we have captured.

Another frequency, ELF (Electronic Low Frequency), is frequencies below 9 kHz. Apparently, many experiments are being done with regards to this frequency as "whistlers" can be heard. Using special radio receivers, it is said you can hear "whistlers" which are the sound of an energy pulse from a lightning bolt that is following the Earth's magnetic field. ELF is most importantly used for communications with submerged submarines.

What is most interesting about ELF's is its effect on the human brain. First you must understand that the brain goes through different stages or states; beta, alpha, theta and delta. Beta (15-40 cycles per second) is the state your brain is in when you would be most alert and/or working. Alpha (brainwaves are slower and high in amplitude; 9-14 cycles per second) would be more of a relaxed or reflecting state. Theta (slower brainwaves and greater amplitude; 5-8 cycles per second) would be a daydreaming like state. Delta (slowest frequency with the greatest amplitude; 1.5-4 cycles per second) would be in a dreaming state or deep sleep. If ELF can affect our brain and potentially 'control' or 'alter' our stages, is it possible to be able to change the current stage and be able to hear on a different level? We wonder if when we are almost asleep or in the delta stage in which dreaming occurs, we hear things that are paranormal. Perhaps we can hear in these different frequencies as our brains pass through the different stages of consciousness. Perhaps this is why a common report of paranormal activity is when we are sleeping.

Light Spectrum

A critical part of paranormal investigation is to document data that either supports or refutes the existence of the paranormal. One such piece of data we document is visual data which is done by using video cameras. In order to document visual data you need a basic understanding of the

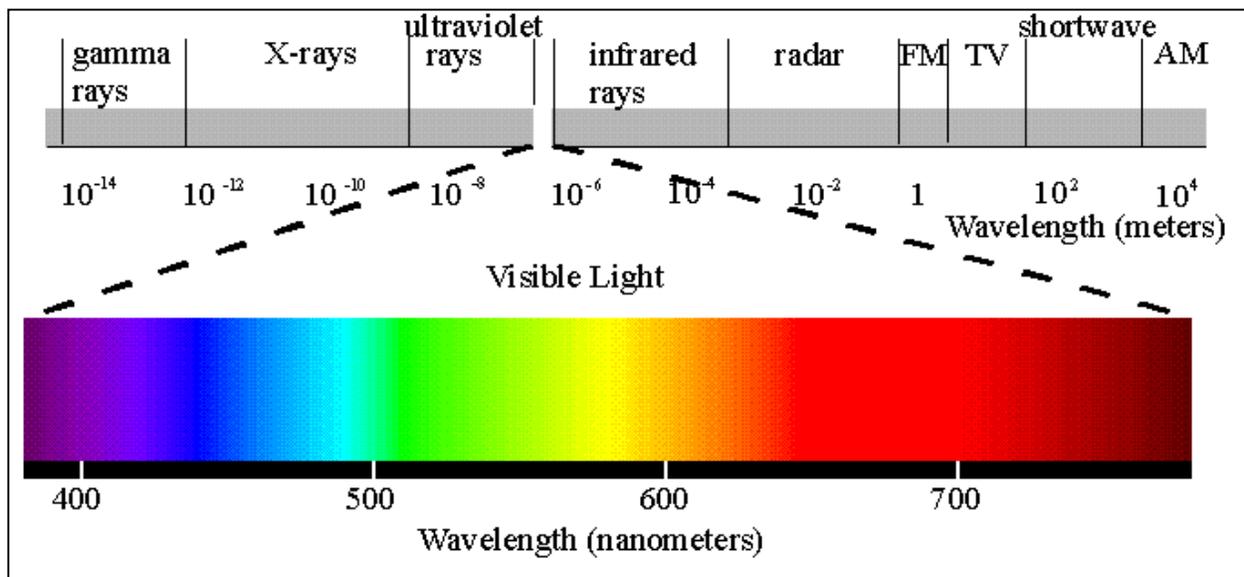
Bumps in the Night!!!!

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various light spectrums, how they relate to the paranormal, and how our eyes actually see and process the colors of this range. The human eye is sensitive to only a narrow band of frequencies that are contained in the entire color spectrum, known as visible light spectrum. The image below shows the complete light spectrum, that ranges from gamma rays to AM waves, and as you can see only a small portion can be seen by the human eye.



Source for image:

<http://www.bing.com/images/search?q=Light+spectrum+diagram&view=detail&id=0E93584E0BD0E822664B151902B6663143349DD6&first=0>

The theory in the paranormal field is that most visual paranormal activity is happening outside of the visible light and is occurring in the Ultraviolet (UV) and Infrared Rays (IR) frequencies. There are many cameras now that record data in some or all of the visible, IR, and UV frequencies. If you want to record in visible light most camcorders will work. If you want to record in IR you will need a camera with Night Vision, Night Shot, or 0 LUX capabilities. If you want to record in UV you will need a UV capabilities. If you want to record in all three frequencies then look for a Full Spectrum camera.

There are other real-world examples of using technology built for IR and UV. The military has been using the IR technology since the late 30's since it is invisible to the naked eye and does not present any issues the way a shining white flashlight would. Police departments use UV light, also known as black light, and a chemical sprayed on an area to detect DNA related evidence in the dark. The government uses UV materials in the creation of money to indicate it's authenticity, allowing receivers of the money to use a black light to check for the UV materials.

To learn more go to:

http://www.paranormalghost.com/evp_frequency_ranges.htm

<http://web-us.com/brainwavesfunction.htm>

http://missionscience.nasa.gov/ems/09_visiblelight.html