

Low Frequency Noise in Lightweight Structures - an introduction

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Low Frequency Noise

It's a funny old thing

Low Frequency Noise



Could it be responsible
for ghostly sightings?

Who Ya Gonna Call?

Vic Tandy of the *School of International Studies and Law*
obviously....

In his paper “***Something in the Cellar***”
(published in the Journal for Psychical Research)
he measured LF noise in Coventry’s Tourist Information Office
where “a significant number of visitors report a presence”

Who Ya Gonna Call?

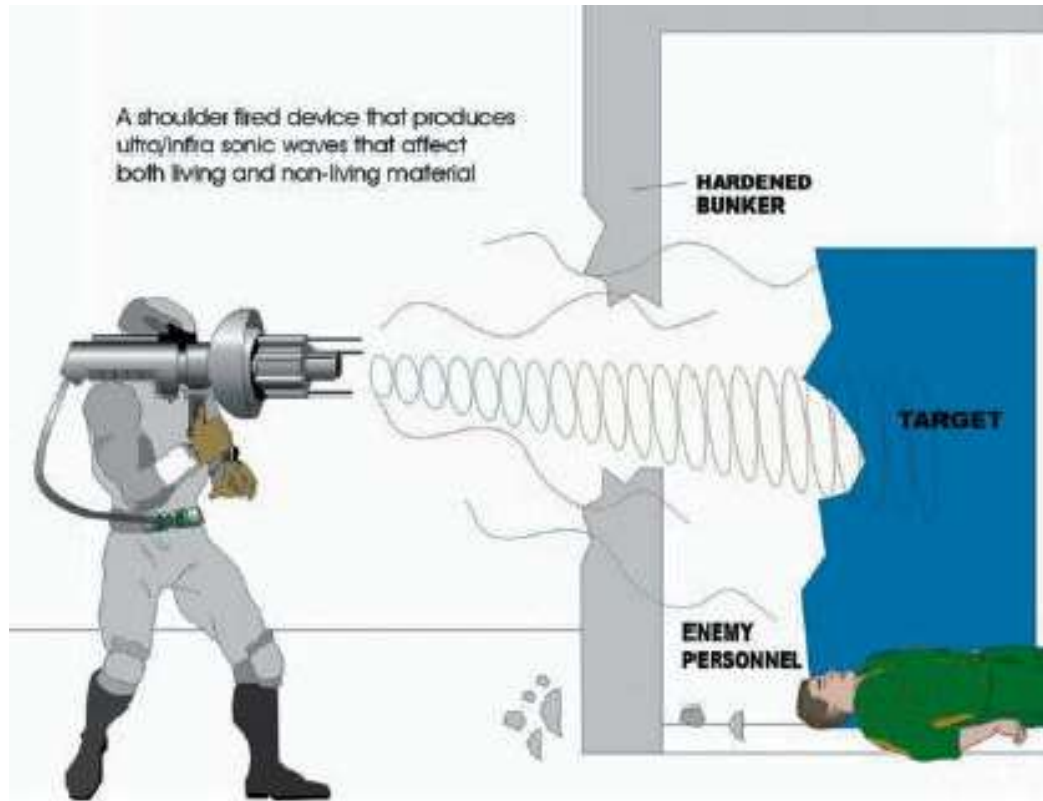
This supported his previous work with Tony Lawrence (in their 1998 paper "*The Ghost in the Machine*").

They investigated a haunted building and found a very strong 19Hz tone

Vic Tandy's Conclusions?

An investigation into the link between infrasound and the perception of apparitions was performed in the 14th Century cellar beneath the Tourist Information Centre in Coventry. Based on the effect described in *The Ghost in the Machine* (Tandy and Lawrence 1998) details of individuals experiences were recorded and an analysis performed to test for any infrasound present in the cellar. Infrasound was found to be present at the point at which individuals had reported apparitional experiences at exactly the same frequency as that predicted in the original paper.

LFN as Weapon ?



The Infrasonic Cannon

Can it destroy buildings?

Or could it even kill you?

Low Frequency Noise

But back to more serious matters

Low Frequency Noise

Various studies have been done

Many people claim to be affected

Often no “real” cause can be found

Low Frequency Noise

It's not a "normal" noise source

Do you hear it or do you feel it?

And how do you assess its impact?

Low Frequency Noise

Not using BS4142...

BS 4142:2014



**Methods for rating and
assessing industrial and
commercial sound**

The standard is not applicable to the assessment of low frequency noise.

NOTE Information on the assessment of low frequency noise is given in
NANR45 [1, 2].

Lightweight Buildings aren't helping

Jack Harvie-Clark - Apex Acoustics

Iain Critchley - Peninsular Acoustics

