

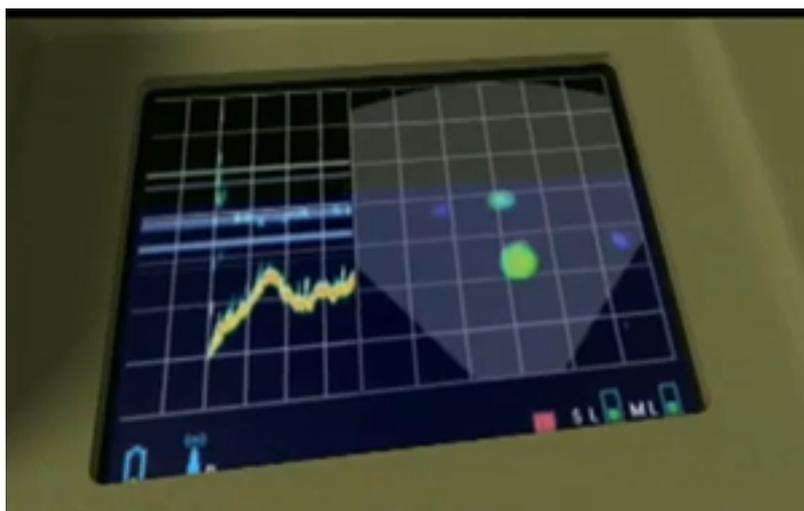
Through-wall radar aids in urban operations

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In 2007, SSG [David Bellavia](#) [1] released the most poignant memoir of the Iraq War, “[House to House](#) [2].” The title is significant, because house-to-house fighting is among the most dangerous forms of urban warfare. It’s the unknown that makes it so precarious—each domicile could be a trap in waiting. The problem is situational awareness, or lack thereof. [Camero](#) [3] may have a solution with the [Xaver 400](#) [4], a compact through-wall radar.

The Xaver 400 Tactical Through-Wall Vision System uses a multichannel, Ultra-Wideband (UWB) sensor operating at very high bandwidth to detect the inhabitants of a room (within an 8-meter range). The title is a bit of a misnomer, since the Xaver 400 doesn’t actually see through walls—not like Superman, anyway. Rather, it purportedly uses electromagnetic pulses to pinpoint the whereabouts of individuals—both static and moving objects.



About the size of a laptop (37 cm wide), and weighing less than 3kg (including the battery), the Xaver 400 is portable and small enough to be toted by individual soldiers. It operates on a frequency range from 3 GHz to 10 GHz, has an 80° field of view in both Azimuth and Elevation, and purportedly provides 6 hours of continuous operation (according to the video, as seen below).

The display is fairly intuitive, with blips and dots representing a room’s inhabitants

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(see pic to the left). The system can penetrate most common wall types, including cement, brick, plaster, and dry wall, and wireless video can be transmitted up to 100 m away.

US forces undoubtedly have robots that can stealthily infiltrate a room. But the Xaver 400 provides actionable intel without even entering, allowing attackers to retain the element of surprise.

Source URL (retrieved on 12/29/2014 - 2:16am):

<http://www.ecnmag.com/blogs/2010/05/through-wall-radar-aids-urban-operations>

Links:

[1] <http://www.davidbellavia.com/>

[2] http://www.amazon.com/House-Soldiers-Memoir-David-Bellavia/dp/B001IV5W08/ref=sr_1_1?ie=UTF8&s=books&qid=1272981008&sr=8-1

[3] <http://www.camero-tech.com/>

[4] <http://www.camero-tech.com/xaver400.shtml>