

## FORGET TEXTING—LASERS COULD BE ZAPPING MESSAGES TO PEOPLE'S HEADS IN THE FUTURE

By Elizabeth Rayne

If you thought <u>sharks with frickin' laser beams attached to their heads</u> were cool (above), your mind is about to be blown.

Humans could soon have laser beams <u>zapped</u> to their heads, since Pentagon researchers recently finished the latest round of testing on a revolutionary new technology — laser gizmos that beam clear human speech through the air. While it's being developed as part of the military initiative Joint Non-Lethal Weapons Directorate (JNLWP) for now, you never know.

Laser Induced Plasma Effect is the tech that will make the impossible possible. Blasting enough laser bursts at the right frequencies can mimic human speech, so if you create a ball of <u>plasma</u> by firing a monster laser, then fire a second one to oscillate that plasma, that will produce sound waves.

The futuristic tech is still in its embryonic phase. High and low frequencies are still being adjusted to sound like someone is actually talking in your head. It can transmit a message to a wall from a few feet away, but has a way to go before it can warn enemy forces up to hundreds of miles away. That would give it sci-fi capabilities like giving long-distance commands or warnings, and even beaming down orders from an aircraft.

How will sci-fi turn into science? Scientists are messing with algorithms to mimic human speech. You need just the right wavelength to make it sound like someone miles away is telling you to back off. It doesn't have to be in HD. To give you an idea, the range of a human voice is

20 kilohertz. Your cell phone speaker's is around 8 khz. So long as it sounds somewhat human, people will get the hint.

Lasers should eventually be able to penetrate buildings when the tech is ready in an estimated five years, though they can only make it through glass so far.

There is one downside. The ultra-short pulse rates of high-energy lasers, which will strip away electrons to leave a white plasma sphere, will create the same effect as a <u>sonic boom</u>. Meaning, it's going to hurt for whoever is on the receiving end. Someone getting a laser message would experience a burning sensation without actually being burned. The message <u>will reach the brain</u> by drilling nano-holes in the skin that trigger nerve responses.

That's probably what you'd expect from the heat of lasers coming in contact with human skin. Whoever gets one of these messages will see a glowing white ball, so they better brace themselves.

Will laser communication be the new texting? Who knows?

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