

INVISIO launches first headset that performs in all mission scenarios

Soldier Modernisation talks to INVISIO about their innovative new T7 headset

Q: INVISIO is noted for their innovation. Even from yourselves it's a bold statement for the T7 to be all mission ready. How did you evolve the new product?

A: The T7 headset was created with US Special Forces involvement. They had a need for a multi-use headset, one that could be submersible for maritime operations through to parachuting from 40,000 feet. We also spoke to French and Italian special forces and they provided crucial input during the development stage. That was important in terms of fit and comfort. This led to the creation of the T7 headset

which can withstand the harshest of environments, from 10m under water to the highest altitudes.

Q: Could you expand on the submersible feature of the product and how this leads to more complex issues in comfort and fit; and the fact that there wasn't a multi-use tactical communications headset on the market?

A: The US Special Forces had a need for a submersible headset, they requested a 10m depth. We were surprised that no multi-use product already existed in this area, particularly



INVISIO T7 is a rugged, submersible and lightweight hearing protection headset designed to withstand the harshest conditions.



More than 1,000 MRI head scans were analyzed to develop the new patent-pending, ergonomically shaped 3D cushion, designed for ultimate fit and comfort.

a high performance one. It was a key challenge from a research and development point of view to maintain audio and performance quality when re-surfacing after having been submersed.

Our mechanical, acoustic and software engineers stretched their skills and worked long hours to develop a headset to not only meet the multi-use need of the headset, but to also provide a headset of less than 350 grams, and to develop a new, patent pending ergonomic 3D cushion that mimics the most common ear and head shape. The T7 is an over-the-ear headset, with a boom mic that gives ultimate performance in very noisy environments and in high wind conditions due to the option of an extreme windjammer.

Q: You mentioned the patent pending on the new ergonomic 3D cushion, but this isn't the only innovative patent on the product. Could you talk about the other patents pending?

A: As you said earlier, innovation has always been critical to INVISIO, headsets should provide seamless use for the wearer, particularly in military scenarios. Alongside the 3D cushion pending patent, there was the need for a new speaker system that would allow for the speaker to compress under water and to instantly return to normal upon re-surfacing. The speaker system also has a breathable membrane which constantly releases air to prevent expansion, and hence very low decompression time, e.g. when used at high altitudes for parachuting. This also has a patent pending.

Another area of innovation with a patent pending is the new hear-thru microphone draining system that enables the microphone to work immediately after re-surfacing from a



The T7 Headset is available in three different interchangeable wearing styles: Headband, Neckband and Helmet Mount. Cushions are available as foam, gel and the new ergonomically shaped 3D cushion.

dive. This also solves a problem with standard microphones. Sound can be distorted if the wind protection foam is wet.

If I could just expand on the pending patent for the 3D cushion, it is designed to provide a top level of comfort and fit for the user. Our engineers analyzed over 1,000 MRI head scans to create the cushion that accommodates pressure points and contours regularly found in those scans.

Safety, comfort and versatility have really been improved with INVISIO's T7's three patent pending features.

Q: What do you see as the next step in the evolution of INVISIO headsets?

A: A close collaboration with customers, and an in-depth understanding of their needs, is an integral and critical part of our innovation model. Many of our innovations are a direct result of interacting with end-users and understanding their needs. This approach will continue to be our model of operation which has been successful over the past 15 years.

The need for modular and interoperable solutions that fit any critical operation or scenario across different teams and individuals, will be even stronger in the future.

That is why a lot of resources are put into developing headsets and systems that are interchangeable across current and future INVISIO systems; and automatically interact with other devices such as radios, intercom systems, smartphones, computers, tablets and remote PTTs.

One thing is for sure; INVISIO will keep pushing the limits of technologies to protect and enable professionals on critical missions. ■

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