BONE CONDUCTOR TECHNOLOGY

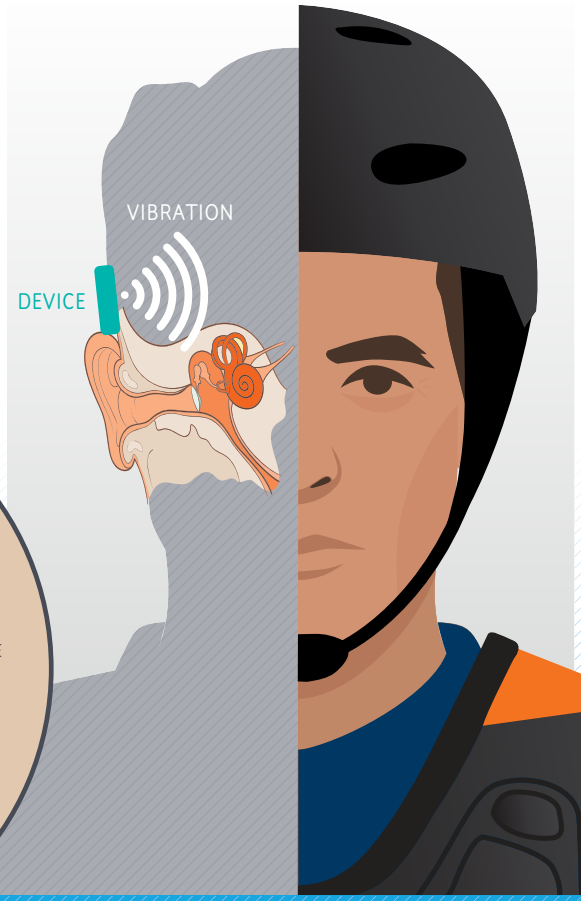
Powering Land Rover BAR's bid for America's Cup victory

BAE SYSTEMS
INSPIRED WORK

How bone conduction works

The human body can transmit sound through bones as well as via sound waves travelling through the ear canal.

Bone conduction bypasses the ear drum, converting sound waves into vibrations that are sent through the cranial bones directly to the cochlea.



Adapting bone conductor technology for the sailing world

- BAE Systems has adapted cutting-edge bone conductor technology for Land Rover BAR to boost the team's bid to win the America's Cup in 2017
- Regular headsets worn by racers tend to fill with water and become muffled, making clear communication between the racing crew and support staff almost impossible
- BAE Systems' solution sees bone conductor technology applied to the sailing world as a way of dramatically improving communication between crewmates and support boats
- Through a specially designed headset, users are able to keep both their ears free so external sounds can be heard, whilst providing the ability to communicate clearly with crewmates despite the harsh conditions

The history of bone conductor technology

1550

An Italian mathematician demonstrates a method to transmit sound through a rod held between the teeth.

1711

A British musician develops the tuning fork.

1798

Beethoven finds a way to hear music by attaching a rod to his piano and clenching it in his teeth.

1876

The first commercial bone conductor hearing aid is developed in Italy.

2013

Google Glass® launched, using bone conductor to relay information to the user through a transducer that sits beside the ear.