3D-Audio/Active Noise Reduction

Introduction
Terma is integrating its Active Noise Reduction (ANR) and 3D-Audio technologies with BAE Systems’ pilot helmets. In 2015, the two companies signed an agreement to improve pilots’ situational awareness, which may also eventually benefit land vehicle operators. The joint capabilities will be demonstrated in the BAE Systems’ hall during Farnborough International Airshow.

Operational Benefits
Traditional pilot helmet products, focus primarily on leveraging the sense of sight through Head Up and Helmet Mounted Displays (HMD), and the pilots lose their sense of audio directionality with legacy headsets.

Terma adds the directional audio capability to the helmets in the form of 3D-Audio while at the same time adding Active Noise Reduction.

Airborne or acoustically transmitted noise is always present in aircraft, but measures can be taken to reduce it. Terma’s Active Noise Reduction is highly adaptable and supports even the noisiest aircraft platforms. The technology can reduce pilot fatigue, hearing loss and improve speech intelligibility.

3D-Audio helps pilots deal with threat warnings within a complete 360 degree sphere of the aircraft. It alerts them from the exact direction of the danger and also when a threat changes path, which is particularly important in the case of missiles. Pilots with access to 3D-Audio can initiate instant evasive manoeuvres – without the need to process any information mentally.

Terma 3D-Audio/ANR can be added to all helmet products, supporting fighter and rotary-wing platforms.
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BAE Systems and Terma cooperation
After signing an agreement in 2015, the firms have initially worked on a 3D-Audio/ANR headset for demonstration with BAE Systems’ helmet, to be followed by final product development. Terma and BAE Systems will then perform aircraft integration and certification before serial helmet production commences.

President and CEO at Terma Jens Maaloe said: "As a result of the Terma /-BAE Systems agreement, we expect to gain access to a significant market and increase exposure for these technologies globally. We look forward to the collaboration, which will also contribute to the further development and improvement of our Active Noise Reduction and 3D-Audio products."

Group Business Development Director at BAE Systems, Alan Garwood added: "This is further evidence of our strong links with Danish industry and Terma in particular. Combining our expertise will keep our market-leading pilot helmets at the cutting edge of technology. As well as investing finance and intellectual property in the project, BAE Systems will provide exposure to our global customer network for these two Terma technologies."

About Terma
The high-tech Terma Group develops products and systems for defense, non-defense and security applications, including command and control systems, radar systems, self-protection systems for aircraft, space technology, and aerostructures for the aircraft industry. Terma A/S is headquartered at Aarhus Denmark and maintains several facilities, subsidiaries and operations domestically and internationally.

About BAE Systems
At BAE Systems, we provide some of the world’s most advanced, technology-led defence, aerospace and security solutions and employ a skilled workforce of some 84,100 people in over 40 countries. Working with customers and local partners, we develop, engineer, manufacture and support products and systems to deliver military capability, protect national security and people and keep critical information and infrastructure secure.

Contacts
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Terma 3D-Audio/ANR Headset Assembly
Striker® II helmet-mounted display system from BAE Systems