



Case Study

Hearing Protection trials for the British Army

THE CHALLENGE

Hearing Protection is vital for troops on the front line to protect them against both the short high impulse weapon firing and the long loud drone of engine noise. Exposure to this noise during training or combat, for even a short space of time can increase the risk of noise induced hearing loss.

We were asked to trial Hearing Protection systems to assess their suitability for front line operations, focussing specifically on the Human Factors issues, such as comfort, adjustability, flexibility and communication to help inform the procurement of future suitable systems for the MOD.

OUR SOLUTION

Our Human Factors team is experienced in conducting trials with military personnel to test complex systems and products. Our experience in the defence sector meant we understood the context of use and the requirements of the users.

We conducted a week long trial with British forces personnel, testing different in-service Hearing Protection systems in a number of test conditions. The suitability of the systems were assessed during outdoor assault courses, fitness tests, simulated weapon firing drills and equipment fits, amongst others, to represent the varied contexts in which they would be used.

We conducted the experimental design and applied a number of objective and subjective research methods to gather data to develop user requirements and recommendations.

THE BENEFITS

The systems were measured against a number of different criteria so that all Human Factors aspects were addressed. This will ensure that military personnel have a Hearing Protection system that is not only comfortable, adjustable and useful – but also provides adequate protection when in harsh noise environments and in the battlefield.

Client

Defence Equipment & Support (DE&S), Ministry of Defence (MoD)

Business need

Hearing protection is currently a major issue for the British Army, with many retired personnel suffering life long hearing damage. Effective hearing protection is also needed for current troops on the front line, without compromising their communication, situation awareness or comfort.

Why Frazer-Nash?

We have significant experience capturing user requirements and providing guidelines and recommendations for complex problems.



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