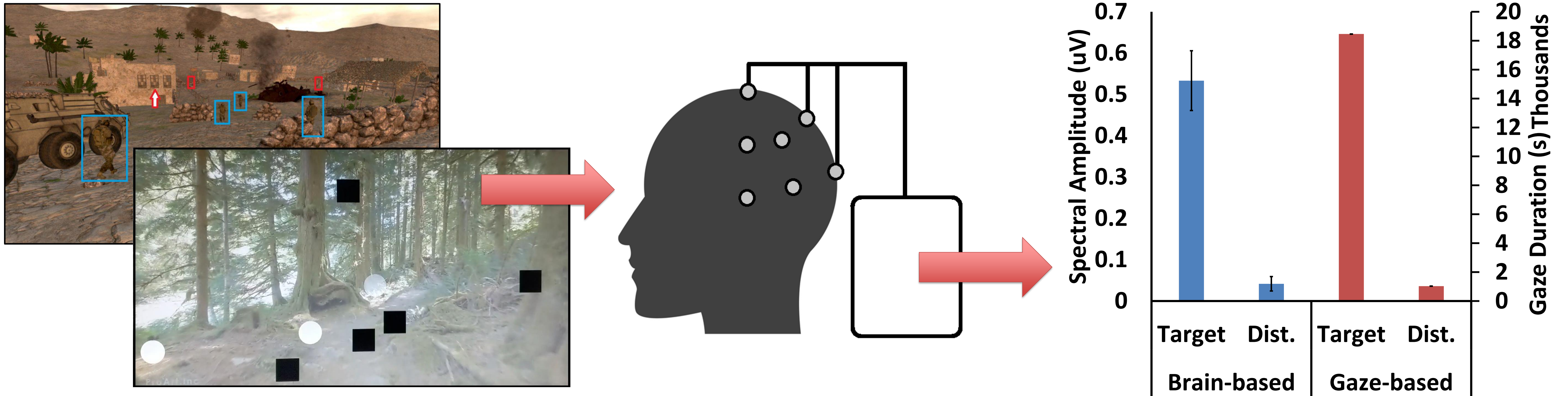




Helped, not hindered: Optimising the use of augmented reality by Defence personnel



Purpose

- Augmented reality (AR) solutions are beginning to be deployed.



The Integrated Visual Augmentation System, known as IVAS, will be tested by 82nd Airborne Division troops next month at Fort Pickett, Virginia (1)

- AR can impair situational awareness by decreasing sensitivity to an unexpected event. People may “look,” but not “see” that event.
- The project tests the utility of AR using a novel brain-based measure of attention alongside eye-based measures of attention.

Product

- The project will examine costs/benefits of AR on attention.
- Will provide insights as to:
 - Better/worse use cases for AR.
 - Likely impacts of training.
 - Likely impacts of fatigue.

Schedule

- FY19-20: Demonstrate technical capacity to track multiple, overlapping, moving targets
- FY20-21: Construct combat video vignettes
- FY21-22: Measure attention using neural/gaze/behaviour while AR cues present/absent
- FY22-23: Measure effect of instructions, Measure effect of fatigue

Partners

- University: Mike Nicholls & Oren Griffiths (Flinders University)
- Co-Partner University: Tobias Loetscher (UniSA)
- DST: Chris Brady

(1) Sheftick, G. (2019) New goggles bring AI to soldier training. Army News Service. Accessed: https://www.army.mil/article/228532/new20_goggles_bring_ai_to_soldier_training