

DHSS Program, Thursday 29 th November	
0845 – 0900	Welcome – Nick Beagley [Research leader: Land Human Systems]
0900 – 0940	Opening Keynote Address Going Deep with Robots: Undersea Warfare in the 2040s CDRE Steve Davies
0940-1000	Morning Tea
Session 1 – CHAIR - Chris Best: Human Systems Integration: Autonomy	
1000 – 1020	Kate Devitt. <u>Design Principles for Lethal Autonomous Weapons Systems [2]</u>
1020 – 1040	Madeleine Krastev and Philip Temby. <u>Exploring the Cognitive Aspects of Human-Autonomy Teaming in the Land Domain: A Scoping Review [4]</u>
1140 – 1100	Cassandra Heffernan, Susan Cockshell and Anna Ma Wyatt. <u>The Effect of Swarm Image Integration on Human Performance and Workload in the Maritime Domain [41]</u>
1120 - 1140	Shayne Loft, Brittany Lock, Adella Bhaskara, Michael Skinner, James Brooks, Helen Pongracic and Jason Bell. <u>Human-Autonomy Teaming in the Management of Unmanned Vehicles: The Effect of Automation Transparency and Mission Stakes⁴ [29]</u>
1140 – 1200	Michael Skinner. <u>Autonomous Warrior 2018: Evaluating the effectiveness of a command and control system to support supervisory control of multiple uninhabited vehicles [22]</u>
1200 – 1300	Lunch & Poster Sessions
Session 2 – CHAIR - Phil Temby: Human Systems Integration: HCI and Automation	
1300-1320	Kingsley Fletcher, Megan Bartlett, Susan Cockshell and Jason McCarley. <u>Visualising Probability of Detection to Aid Sonar Operator Performance [3]</u>
1320 – 1340	Vanessa Bowden, Drew Butson, Natalie Griffiths and Shayne Loft. <u>Supervising Highly Reliable Automation - Effects of Instructed Reliability on Detection of a Single Failure in Air Traffic Control [34]</u>
1340 – 1400	John Cass and Kingsley Fletcher. <u>Where the bleep are you? Effects of audio-visual sensory substitution on sonar detection performance [6]</u>
1400 – 1420	Rest Break
Session 3 – CHAIR - Ross Coad: Human Performance: Food and Nutrition	
1420 – 1440	Katie Tooley and David Crone. <u>The microbiome and the soldier: Can it be manipulated to enhance cognition (A Review)? [11]</u>
1440 – 1500	Julia Carins, Sharyn Rundle-Thiele, Anna Kitunen and Di Robertson. <u>Skilling and supporting: Enhancing healthy eating behaviours in early career personnel [17]</u>
1500 – 1520	Anna Kitunen, Julia Carins and Sharyn Rundle-Thiele. <u>Encouraging healthy eating in The Australian Defence Force: A segmentation approach [20]</u>
1520 – 1540	Jeanine De Diana, Roger Stanley and Rosa Peterson. <u>Functional High Energy Bar for Physical and Cognitive Performance [21]</u>
1540 – 1600	Lan Bui, Roger Stanley, Ross Coad and Amir Ghandi. <u>Future Defence Feeding Systems Enabled by Rapid Microwave Processing [35]</u>
1600-1640	Afternoon Tea & Poster Session
Session 4 – CHAIR – Mark Jaffrey : Human Performance: Physiology	
1640 – 1700	Anthony Leicht, Wade Sinclair, Kenji Doma and Paul Bowman. <u>Weekly Heart Rate Variability Recordings Can Predict Physical Performance [8]</u>
1700 – 1720	Andrew Hunt, Ian Stewart and Daniel Billing. <u>What does it mean? Interpreting data from wearable technologies for monitoring physiological strain [38]</u>
1720 – 1740	Matthew Palmer, Ashlee Turner, James Sauer and James Fell. <u>Effects of Acute Physical Exercise on Metacognition [43]</u>
1830 - 1900	Meet for Dinner
1930 – 2200	Conference Dinner: Including Keynote MAJ Sally Graham

DHSS Program, Friday 30th November	
0830	Welcome – Overview – David Crone
Session 5 – CHAIR – Susan Cockshell: Cognitive Performance: From Perception to Decisions	
0840 – 0900	Joseph Calleja, Benjamin Hoggan and Philip Temby. <u>Psychological Predictors of Military Decision-Making Performance on Tactical Planning Exercises [7]</u>
0900 – 0920	Maria Gavrilescu, Renee Karas, Amanda Douglass, Larry Abel and Peter Gibbs. <u>Establishing tolerance limits for optical misalignment in night vision binocular devices based on task performance and physiological markers of fatigue [15]</u>
0920 – 0940	Andrew Lawrence, Eugene Aidman, Kim Felmingham, Ellie Lawrence-Wood and Alexander McFarlane. <u>Neural response discrimination between threat and non-threat stimuli is reduced in combat-exposed military personnel: Event-related potential (ERP) evidence from the MEAO prospective study cohort [16]</u>
0940 – 1000	Alex Chatburn, Maarten Immink, Diane Pomeroy, Bruce Thomas, Ina Bornkessel-Schlesewsky, Matthias Schlewsky, Javaan Chahl and Mark Bilinghurst. <u>Adaptive virtual reality cognitive training based on real time alpha power measurement [18]</u>
1000 – 1020	Shahd Al-Janabi and Larissa Cahill. <u>Making the unseen seen: Using the perceptual and cognitive sciences to guide augmented-reality design [19]</u>
1020 – 1040	Morning Tea
Session 6 Continued – CHAIR – Sam Huf: Cognitive Performance: From Perception to Decisions	
1040 – 1100	Angela Bender, Shayne Loft, Ottmar Lipp, Vanessa Bowden, Susannah Whitney and Troy Visser. <u>Situation Awareness Mediates the Relationship between Working Memory Ability and Performance on the Air Traffic Control Task [24]</u>
1100 – 1120	Udo Boehm, Dora Matzke, Matthew Gretton, Spencer Castro, Joel Cooper, Michael Skinner, David Strayer and Andrew Heathcote. <u>Real-time prediction of fluctuations in cognitive workload [42]</u>
Session 7 – THEME - CHAIR – Sam Huf: Defence Focused – Resilience and Fatigue	
1120 – 1140	Joslyn Mak, Wesley McTernan and Jiangjun Tang. <u>Job Demands–Resources (JD-R) as predictors towards the experience of fatigue in the Australian Defence Force (ADF) pilots and maintainers [9]</u>
1140 – 1200	Alexandra Boeing, Belinda Cham, Karina Jorritsma and Mark Griffin. <u>Developing a measurement protocol for the submarine environment: a case study on exploring submariner endurance [36]</u>
1220 – 1220	Sabina Kleitman, Eugene Nalivaiko, Matthew Blanchard, Simon A Jackson, Nikzad Babaii Rizvandi and Eugene Aidman. <u>Relationship between Biometrics and Simulation-embedded Performance Markers Assessing Individual Differences in Resilience and Adaptability [27]</u>
1220 – 1300	Lunch
Session 7 – CHAIR – Susannah Whitney - Human Performance: Teams	
1300 – 1320	Matthew Blanchard, Sabina Kleitman, Simon Jackson, Nikzad Babaii Rizvandi and Eugene Aidman. <u>Team similarity profiles: Is psychological similarity associated with team performance? [26]</u>
1320 – 1340	Michael Chapman, Philip Temby and Daniel Gucciardi. <u>Measuring Team Role Preferences and Perceptions of Team Resilience in Australian Army Personnel [30]</u>
1340 – 1400	Steph Michailovs, Stephen Pond, Megan Schmitt, Jessica Irons, Matthew Stoker, Troy Visser, Sam Huf and Shayne Loft. <u>Exploring Fundamental Issues of Team Performance in a Submarine Control Room Use Simulation Environment [39]</u>
1400 – 1420	Philip Temby, Ben Hoggan, Michael Chapman and Daniel Gucciardi. <u>Examining Team Role Preference and Team Performance in a Military Population [25]</u>
Panel Discussion	
1420 - 1520	Discussion: Minders, Mentors, Minions or Mates – Warfighter roles in Future Complex Systems Chair: Eugene, PARTICIPANTS: To be confirmed.
1520 – 1530	Symposium Close & Awards: David Crone