DHSS Program, Thursday 29th 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. Design Principles for Lethal Autonomous Weapons Systems [2]
1020 – 1040	Madeleine Krastev and Philip Temby. Exploring the Cognitive Aspects of Human-Autonomy Teaming in the Land Domain: A Scoping Review [4]
1140 – 1100	Cassandra Heffernan, Susan Cockshell and Anna Ma Wyatt. The Effect of Swarm Image Integration on Human Performance and Workload in the Maritime Domain [41]
1120 - 1140	Shayne Loft, Brittany Lock, Adella Bhaskara, Michael Skinner, James Brooks, Helen Pongracic and Jason Bell. Human-Autonomy Teaming in the Management of Unmanned Vehicles: The Effect of Automation Transparency and Mission Stakes4 [29]
1140 – 1200	Michael Skinner. Autonomous Warrior 2018: Evaluating the effectiveness of a command and control system to support supervisory control of multiple uninhabited vehicles [22]
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. Visualising Probability of Detection to Aid Sonar Operator Performance [3]
1320 – 1340	Vanessa Bowden, Drew Butson, Natalie Griffiths and Shayne Loft. Supervising Highly Reliable Automation - Effects of Instructed Reliability on Detection of a Single Failure in Air Traffic Control [34]
1340 – 1400	John Cass and Kingsley Fletcher. Where the bleep are you? Effects of audio-visual sensory substitution on sonar detection performance [6]
1400 – 1420	Rest Break
Session 3 – CHAIR - Ross Coad: **Human Performance: Food and Nutrition**	
1420 – 1440	Katie Tooley and David Crone. The microbiome and the soldier: Can it be manipulated to enhance cognition (A Review)? [11]
1440 – 1500	Julia Carins, Sharyn Rundle-Thiele, Anna Kitunen and Di Robertson. Skilling and supporting: Enhancing healthy eating behaviours in early career personnel [17]
1500 – 1520	Anna Kitunen, Julia Carins and Sharyn Rundle-Thiele. Encouraging healthy eating in The Australian Defence Force: A segmentation approach [20]
1520 – 1540	Jeanine De Diana, Roger Stanley and Rosa Peterson. Functional High Energy Bar for Physical and Cognitive Performance [21]
1540 – 1600	Lan Bui, Roger Stanley, Ross Coad and Amir Ghandi. Future Defence Feeding Systems Enabled by Rapid Microwave Processing [35]
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. Weekly Heart Rate Variability Recordings Can Predict Physical Performance [8]
1700 – 1720	Andrew Hunt, Ian Stewart and Daniel Billing. What does it mean? Interpreting data from wearable technologies for monitoring physiological strain [38]
1720 – 1740	Matthew Palmer, Ashlee Turner, James Sauer and James Fell. Effects of Acute Physical Exercise on Metacognition [43]
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</u> [7]
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</u> [15]
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</u> [16]
0940 – 1000	Alex Chatburn, Maarten Immink, Diane Pomeroy, Bruce Thomas, Ina Bornkessel-Schlesewsky, Matthias Schlesewsky, Javaan Chahl and Mark Bilinghurst. <u>Adaptive virtual reality cognitive training based on real time alpha power measurement</u> [18]
1000 – 1020	Shahd Al-Janabi and Larissa Cahill. <u>Making the unseen seen: Using the perceptual and cognitive sciences to guide augmented-reality design</u> [19]
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</u> [24]
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</u> [42]
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</u> [9]
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</u> [36]
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</u> [27]
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?</u> [26]
1320 – 1340	Michael Chapman, Philip Temby and Daniel Gucciardi. <u>Measuring Team Role Preferences and Perceptions of Team Resilience in Australian Army Personnel</u> [30]
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</u> [39]
1400 – 1420	Philip Temby, Ben Hoggan, Michael Chapman and Daniel Gucciardi. <u>Examining Team Role Preference and Team Performance in a Military Population</u> [25]
Panel Discussion	
1420 - 1520	Discussion: Minders, Mentors, Minions or Mates – Warfighter roles in Future Complex Systems Chair: Eugene Aidman - PARTICIPANTS: To be confirmed.
1520 – 1530	Symposium Close & Awards: David Crone