

UDT Asia 2019



Day 1

09:00 Chairman's opening remarks

Captain Simon Chelton, Royal Navy (Retd.); Managing Director, CCL International and Association Fellow, RUSI

09:15 Approaches to Undersea Operations in Littoral Waters

Commodore Paul Hornsby, Autonomous Systems Lead and Director Autonomous Warrior 2018, Royal Australian Navy

09:45 Q&A with Commodore Paul Hornsby

09:50 PANEL DISCUSSION: Disruptive Technologies and their Implications for the Future Underwater Battle Space

- Technology trends and strategic areas of investment
- A focus on sensing and detection: How is situational awareness likely to change and become enhanced?
- What are the subsequent implications for stealth and operating undetected?

Captain Simon Chelton, Royal Navy (Retd.); Managing Director, CCL International and Association Fellow, RUSI

Commander (ret) Jeroen De Jonge, Director Naval Programs, Information and Sensor Systems, TNO Defense, Safety and Security

Dr. Nandagopan Obla. Ramanandam, Outstanding Scientist and Director, Naval Science & Technological Laboratory, Defence Research & Development Organisation, Ministry of Defence, Government of India

Mr Warren Smith, Research Leader Undersea Command and Control, Maritime Division, Australian Defence Science and Technology Group

10:30 Morning break and networking

UNDERSEA COMMAND & CONTROL

11:00 Developing Underwater Command and Control for Enhanced Situational Awareness

Mr Warren Smith, Research Leader Undersea Command and Control, Maritime Division, Australian Defence Science and Technology Group

11:30 Submarine Digital Navigation & Waterspace Management (WSM): The Human-Machine Interface (HMI)

Mr Tony Allen, Director of Business Development, OSI Maritime Systems

12:00 Buried Object Detection with Swarm Operating mode AUVs : BODAMM

Mr Maxime Velu, Sales & Marketing Manager Asia & Pacific, RTSYS

12:30 *Q&A with session speakers*

12:40 Lunch and Networking in the Exhibition Area

PLATFORM ENGINEERING AND CAPABILITY DEVELOPMENT

13:40 Technology Advancements in Underwater Naval Systems

Dr. Nandagopan Obla. Ramanandam, Outstanding Scientist and Director, Naval Science & Technological Laboratory, Defence Research & Development Organisation, Ministry of Defence, Government of India

14:10 *Q&A with Dr. Nandagopan Obla. Ramanandam*

14:15 Recent Advances in Underwater Sensor Network Technology

Professor Mandar Chitre, Associate Professor and Head, Acoustic Research Laboratory Tropical Marine Science Institute, National University of Singapore

14:45 *Q&A with Professor Mandar Chitre*

14:50 Afternoon break and networking

15:30 Strategic Update on India's Submarine Programme

Commodore (ret) Anil Singh, Vice President, Indian Maritime Foundation

16:00 *Q&A with Commodore (ret) Anil Singh*

16:05 Simulation Studies on the Effect of out-of-Plane Loads on Submarine Manoeuvring

Mr Mohammed Kareem Khan, Scientist, Technology Directorate (Hydrodynamic Research), Naval Science and Technological Laboratory (NSTL), DRDO

16:35 *Q&A with Mr Mohammed Kareem Khan*

16:40 Chairman's Closing Remarks -End of Day 1

Captain Simon Chelton, Royal Navy (Retd.); Managing Director, CCL International and Association Fellow, RUSI

16:50 Close of day 1

Day 2

09:00 Chairman's opening remarks

Captain Simon Chelton, Royal Navy (Retd.); Managing Director, CCL International and Association Fellow, RUSI

SUBMARINE OPERATIONS

09:15 Germany as a Framework Nation for Conventional Submarine Operations

Rear Admiral Ulrich Reineke, Director, Plans and Policy, German Navy HQ

09:45 Q&A with Rear Admiral Ulrich Reineke

09:50 PANEL DISCUSSION: Operational Requirements and Emerging Capabilities for Controlling the Underwater Battle Space in the Asia Pacific Region

- Approaches to operations in congested and shallow waters
- Implications of submarine proliferation in the region
- Possible operating models

Captain Simon Chelton, Royal Navy (Retd.); Managing Director, CCL International and Association Fellow, RUSI

Commodore (ret) Anil Singh, Vice President, Indian Maritime Foundation

Rear Admiral Ulrich Reineke, Director, Plans and Policy, German Navy HQ

Commodore Paul Hornsby, Autonomous Systems Lead and Director Autonomous Warrior 2018, Royal Australian Navy

Commodore Michael Wainhouse, Assistant Chief of Staff Warfare, Royal Navy HQ

10:30 Morning break and networking

11:00 *Submarine Proliferation in the Asia Pacific Region*

Dr Collin Koh Swee Lean, Research Fellow, Maritime Security Programme, RSIS

11:30 Q&A with Dr Collin Koh Swee Lean

AUTONOMOUS UNDERWATER VEHICLES

11:35 The Unmanned Underwater Vehicle: An Alternative for the SSK or a Valuable Addition?

Commander (ret) Jeroen De Jonge, Director Naval Programs, Information and Sensor Systems, TNO Defense, Safety and Security

12:05 Q&A with Commander (ret) Jeroen De Jonge

12:10 Transforming Underwater Inspection and Intervention

Mr Eng Wei Goh, Research Associate, Advanced Robotics Centre, National University of Singapore

12:40 Q&A with Mr Eng Wei Goh

12:45 Chairman's Closing Remarks

Captain Simon Chelton, Royal Navy (Retd.); Managing Director, CCL International and Association Fellow, RUSI

12:55 Lunch and Networking in the Exhibition Area