

Maritime VHF Data Exchange System (VDES) Workshop
Development Status, Opportunities and Challenges, Applications Perspectives
16 January 2018
ESA-ESTEC, Noordwijk

7:30-9:00 Arrive to ESTEC and get entry badge (Please arrive early to avoid long queues and delays)

9:00-9:45	ESA Introductory and Keynote Speeches Welcoming to ESTEC	Franco Ongaro (Director of Technology, Engineering and Quality - Head of ESTEC Establishment)
	From VDES to 5G: supporting the evolution of maritime communications	Xavier Lobao (Head of Future Project Division- ESA Telecommunications Department)
	Maritime applications and future perspectives	Rita Rinaldo (Head of Institutional Project Section - ESA Telecom and Integrated Application Directorate)

09:45 - 11:15	Session 1: Current Status VDES technology developments and standards	
Co-Chairs:	Jillian Carson-Jackson & Nader Alagha	
	VDES – a digital communications evolution	Jillian Carson-Jackson (IALA - EfficiencSea 2)
	VDES standardisation process overview	Stefan Bober (German Waterways and Shipping Administration)
	ASM Development	Johnny Schultz (United States Coast Guard)
	VDE Satellite Protocol	Hans Christian Haugli (Space Norway)
	VDES Resource Sharing	Nader Alagha (ESA)
	Q&A	

11:15-11:30 Coffee Break

11:30-13:00

Session 2: Future VDES Frequency Allocations, Opportunities and Challenges

Co-chairs: Peggy Browning, Stefan Bober

VDES ITU WRC15 Results and Challenges

Hans-Karl v. Arnim (German Maritime and Hydrographic Agency - BSH)

Considerations on VDE-SAT Downlink

Ross Norsworthy (RTCM, US Coast Guard)

Work Towards ITU WRC19

Lars Løge (Statsat AS - Norway)

Operating VDES in simplex mode and mitigating AMRDs on AIS frequencies

Jean-François Coutu (Canadian Coast Guard)

Q&A

13:00- 14:00 Lunch Break

14:00-15:30

Session 3: VDES Applications and Utilization Perspectives

Co-Chairs Laurence Duquerroy (ESA) and Lawrence Sciberras (EMSA)

VDE Satellite for Navigation Augmentation

Anders Bjørnevik (Kongsberg Seatex- Norway)

Space-asset Enabled Navigation services for ECDIS (SENSE)

Wilko Bruhn (Fraunhofer CML - Germany)

Maritime Applications exploiting Reliable VHF data Exchange LOW cost System (MARVELOWS)

Nazzareno Marchese (ITSlab- Italy)

VDES Applications Assessment (JERICHO)

Marcin Waraksa (Gdynia Maritime University - Poland)

Improved communication of digital maritime information

Harald Åsheim (Norwegian Coastal Authority)

Q&A

15:30-15:45 Coffee Break

15:45-17:15

Session 4: VDES Concept Verifications and Trials

Co-Chairs Nader Alagha, Stefan Bober

VDES Verification using NoRSat-2

Hans Christian Haugli (SPN)/**Torkild Eriksen**(FFI)

Vesta Satellite Overview and Trial Planning

Peggy Browning (Exact Earth-Canada)

VDES Ship-to-Ship communications and knowledge gained

Pieter Winter (Stone Three - South Africa)

VDES Testbed for the Concept Verification

Fujio Endoi (Japan Coast Guard)

Authenticating VDES ASM Transmissions

Jan Safar (General Lighthouse Authorities of the UK & Ireland)

Q&A

17:15-17:30 **VDES Workshop Closing Remarks**

Nader Alagha (ESA)

17:30-19:00 **Social Event Sponsored by The IEEE Benelux Communications and Vehicular Technology (COM/VT) Chapter**