

Tuesday, June 13th, 2023

08:00 REGISTRATION & WELCOME

PLENARY ROOM

09:00 **OPENING PLENARY SESSION**
Louis LE PORTZ, 3AF President
Emmanuel DELORME, MBDA - Yannick DEVOUASSOUX, ArianeGroup - Luc DINI, Thales Group, Conference Co-Chairs

PLENARY SESSIONS

GOVERNMENTS VIEWS 1 - Moderator : Luc DINI

09:30 General (Armament) Bertrand LE MEUR, French Ministry for Armed Forces, FR

09:50 Radoslava STEFANOVA, NATO

10:10 Eric DESAUTELS, Senior Coordinator for Emerging Security Challenges, US State Dept., USA

10:30 COFFEE BREAK

GOVERNMENTS VIEWS 2 - Moderator : Yannick DEVOUASSOUX

11:00 Brigadier General Volker SAMANNS, Ground Based Forces, German Airforce, GE

11:20 Colonel (Res.) Moshe PATEL, Director of Israel Missile Defense Organization, MOD, IL

11:40 Anthony WRAIGHT, Missile Defence Center, UK

GOVERNMENTS VIEWS 3 - Moderator : Emmanuel DELORME

12:00 Colonel Andrea TRUPPO, Attaché and Italian National Armament Director Representative to EU and EDA PoC, IT

12:20 General (Armament) Franck LECLERCQ, General Delegation for Armaments, FR

12:40 NETWORKING LUNCH

INDUSTRIALS VIEWS 1 - Moderator : Emily Rose HICKEY

14:30 Morena BERNARDINI, General Secretary MBDA, FR

14:50 Jean-Philippe HARDANGE, VP Strategy, Integrated Airspace Protection Systems, Thales Land and Air Systems (Thales-LAS)

15:10 Yannick DEVOUASSOUX, Bid and Program Director ArianeGroup, FR

15:30 COFFEE BREAK

INDUSTRIALS VIEWS 2 - Moderator : Emily Rose HICKEY

16:00 Lars KROGH VAMMEN, Director of Business Development, WEIBEL, DK

16:20 Brigadier General (Res.) Eytan ESHEL, VP for R&D, Israel Aerospace Industries, IL

16:40 Philippe LE CLÉACH, Vice President Systems of Systems and Collaborative Combat, Naval Group, FR

17:00 *End of Sessions*

19:30 **GALA DINNER : PALACIO DA BOLSA**

Wednesday, June 14th, 2023

	ROOM 1	ROOM 2	ROOM 3	ROOM 4
	SESSION 1 Chairperson : E. DELORME, MBDA, FR	SESSION 2 Chairperson : Y. DEVOUASSOUX, ArianeGroup, FR	SESSION 3 Chairperson : D. ZETZMANN, IABG, DE	SESSION 4 Chairperson : L. DINI, Thales Air Systems, FR
	International & European Policy and Cooperation (including NATO, BMD, NATO IAMD, EU and others)	Modelling and simulation - 1	Interceptors & Weapons Systems and Technologies - 1	Sensor systems & Sensor networks, including Space - 1
08:30	21 Lessons learned from the NATO BMD Programme regarding Multi Domain Operations Laurent SMITH, NATO Communications and Information Agency	80 Analysis of Future Defense Architecture and Military Capability through Modelling and Simulation : the example of Ballistic Missile Defense Carine CHERRIER, French MoD	97 Eurosam contribution in naval systems Eric DELEPOULLE, Eurosam	15 On the Spectrum between Protein Folding and Radar Systems – Confronting Hypersonic Missile challenges Haim AVIRAM, ELTA
08:50	125 Modular GBAD in NATO Claudio PONZI, MBDA Italy	132 Simulation, a strong enabler for assessing & optimizing defense architectures into a multi domain (Space, Air, Land & Sea) context Fatima IERVOLINO-KAJOUT, Hugo PAUGAM, ArianeGroup	63 ASTER, the European sovereign IAMD Capability Pierre ROTY, MBDA FRANCE	101 Impact of the complex European Terrain on future VSHORAD & C-UAS Radar system designs for the maneuvering forces André HANEWINKEL, Hensoldt Sensors GmbH
09:10	113 The implications of an EU Space Strategy for Security and Defence on European Space Governance Giulia PAVESI, KU Leuven	73 Deterministic air defence simulation systems: Simulation Analysis Laboratory Gokhan BIRCAN, Roketsan Inc.	145 Concept Study of a 5 inch Gun Launched Air & Missile Defence Interceptor Wouter HALSWIJK, TNO	94 The Naval Cooperative Surveillance Capability Aline NAVETTI-CAMPILLO, DGA - Antoine BOUQUET, Naval Group
09:30	66 From a Strategic Perspective: Aerial Defense in the Middle East - New Opportunities Gil DOLOV, Israel Defense Force	26 Using Semi-empirical models for threat typing during Interception Elie LEVY, Linkcom Telecom		52 Leonardo Labs advancements in the application of AI to the processing of radar signals and data Pasquale FERRARA, Leonardo Spa
INTERSESSION (10')				
	SESSION 5 Chairperson : R. LEBOVICH, RAFAEL, IL	SESSION 6 Chairperson : S. INSALACO, Leidos, US	SESSION 7 Chairperson : C. PONZI, MBDA Italy	SESSION 8 Chairperson : L. KROGH VAMMEN, Weibel, DK
	Defence Architectures & Integration of Air and Missile Defence - 1	Modelling and simulation - 2	Interceptors & Weapons Systems and Technologies - 2	Sensor systems & Sensor networks, including Space - 2
10:00	10 System of Systems IAMD Architectures Michael HAMER, Parsons	65 An Overview of Digital Engineering (DE) and How it is Applied to Integrated Air and Missile Defense (IAMD) Stephen THOMAS, Parsons	104 Eurosam and SAMP/T NG : key assets for a European Air Defence Industrial Base Philippe CHOPIN, Eurosam	49 Ground Fire, an evolutionary new Multi Function Radar Nico DE BRUIJN, Thales
10:20	11 Smart Launcher – Providing the future today Eili BEHAR, IAI	41 New challenging approach in training methods Avraham NAVOT, Elbit Systems	55 Sea Viper – An appropriate response to the emerging threats Stew KILBY, MBDA	144 European demonstration of Plot Level Data and Exchange Fusion (PLDEF) Martien JOOSTEN, Thales Netherlands
10:40	118 Modifying Operations Of Aegis Ashore in Europe Roy BALACONIS, Balaconis Consulting	134 Avoiding traps of shortcut learning when using deep learning techniques in military intelligence and missile early warning Igor GIRARD-CARRABIN, ArianeGroup	67 A discussion regarding the importance of an ENDO-EXO defense layer in view of the emerging threat Leopold WENGER, IAI	37 Advanced Multi-Mission Tactical Radars - Game-changing building blocks Guy AVITSUR, DRS RADA TECHNOLOGIES
11:00	COFFEE BREAK			

Wednesday, June 14th, 2023

	ROOM 1	ROOM 2	ROOM 3	ROOM 4
	SESSION 9 Chairperson : A. HERMETZ, WALES, IL	SESSION 10 Chairperson : S. INSALACO, Leidos, US	SESSION 11 Chairperson : S. THOMAS, Parsons, US	SESSION 12 Chairperson : L. KROGH VAMMEN, Weibel, DK
	Defence Architectures & Integration of Air and Missile Defence - 2	Modelling and simulation - 3	Interceptors & Weapons Systems and Technologies - 3	Sensor systems & Sensor networks, including Space - 3
11:20	82 RAFAEL's Open Architecture Concept in an Evolving Air Defense Arena Gal. Shachar SHOHAT, Rafael	86 Missile Trajectory Optimization Considerations Ephraim BASHAN, EZB	20 Requirements for Intercepting a Hypersonic Threat by the Lower Tier Ofri BECKER, WALES, Ltd.	43 Future Sensor System Network and SoS (System of Systems) Engineering for IAMD Vincent ARNOULD, HENSOLDT Sensors GmbH
11:40	35 The Russia-Ukraine IAMD Conflict Laboratory: Lessons for the future IAMD operational environment Todd SCHMIDT, PH.D., U.S. Army	81 Data visualization for complex and multi-layered analysis Yoav COHEN, IAI	152 Thales thoughts on countering Hypersonic Operational Threat Nico DE BRUIJN, Thales LAS France, France	47 Very Long Range Radar (TLP): Overview and Experimentation for Early Warning Ronan MOULINET, THALES LAS FRANCE
12:00	9 Determination of Jammer Allocation for Air Defense Systems Yarkin SARGIN, Aselsan Inc.	70 Performance Analysis of a Close In Weapon System Against Multiple Threats Using Partially Observable Markov Decision Processes. Tom VANCAEYZEELE, Belgian Royal Military Academy	78 Intercepting hypersonic threat : facts and way-ahead Emmanuel DELORME, MBDA France	98 SMART-L MM, Diagnostics (Built-In Test) Gilles PREMEL-CABIC, THALES NERDERLAND BV
12:20	136 Countering Advanced Threats with Advanced Integration Matthew FULCHINO, Raytheon	111 Challenges in expanding Defended Area Analyses from Ballistic Missiles to Hypersonic Threats Daniel PAUKNER, IABG mbH	51 User Friendly Gripstock Design for a MANPAD Tuba KAYA, Roketsan Inc.	122 Classifying UAS with FMCW Doppler technology Jose NAVARRO, Weibel Norway AS
12:40	NETWORKING LUNCH			
	PLENARY ROOM			
14:00	PLENARY SESSION - KEYNOTE SPEECH Lt. Gen. Henry "Trey" OBERING			
	INTERSESSION (10')			

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	ROOM 1	ROOM 2	ROOM 3	ROOM 4
	SESSION 13 Chairperson : Y. DEVOUASSOUX, ArianeGroup, FR	SESSION 14 Chairperson : E. LEVY, Linkcom Telecom Ltd, II	SESSION 15 Chairperson : C. PONZI, MBDA Italy	SESSION 16 Chairperson : S. LAMMENS, Thales, NL
	Defence Architectures & Integration of Air and Missile Defence - 3	Modelling and simulation - 4	Interceptors & Weapons Systems and Technologies - 4	Sensor systems & Sensor networks, including Space - 4
14:40	17 Hypersonic Weapons – The View of Terminal Defenses Dror COHEN, WALES, Ltd.	53 Study and optimization of hypersonic intakes for airflows in chemical and thermodynamic equilibrium applied to hypersonic missiles propulsion Laurine HILLION, Hybrid Propulsion for Space	74 Trajectory Optimization of an Air Defense Missile System with Model Predictive Control Rüştü Berk GEZER, Roketsan Inc.	107 Improved tracking accuracy through multi-platform triangulation of radars Doppler information for engagement Frederic LIVERNET, DGA - Antoine BOUQUET, Naval Group
15:00	117 Next Generation Air And Missile Defense System Architecture - Providing Solutions For All Missions Dincer OZCAN, ASELSAN	19 Scramjet Vehicle Optimal Trajectories Joseph BEN-ASHER, WALES, Ltd.	68 Adaptive Attitude Controller Design for a High-altitude Interceptor with Divert and Attitude Thrusters under Input Constraint Yongwoo LEE, Agency for Defense Development	130 Increasing survivability by augmenting active radar with passive sensors Michael RUPPEL, Hensoldt Sensors
15:20	148 Weapons Systems networking Luc DINI, Thales, Metin BUGRU, NATO	75 Aerodynamic loads of thermo-chemical nonequilibrium hypersonic flow around a generic HGV Dominik JAMES, Universität der Bundeswehr München	99 SAMP/T NG System right choices to contribute to European & Allies Defense Alain DEUDON, Eurosam	138 The Space Domain Awareness mission of the SMART-L MM Erwin VAN DER POEL, Thales Nederland B.V.
15:40	133 Space based Intelligence for Ballistic Missiles Defence Younik THOMAS, ArianeGroup	112 Aerodynamic-Shadow Improved Aerodynamics Computations of Hypersonic Vehicles Jannis BONIN, IABG	120 IRIS-T SLM/X - Medium-Extended Range Air Defence tailored to Your Mission Arne NOLTE, Diehl Defence	
16:00	COFFEE BREAK			
	SESSION 17 Chairperson : T. DRUCE, LMCO, US	SESSION 18 Chairperson : L. DINI, Thales Air Systems, FR	SESSION 19 Chairperson : S. THOMAS, Parsons, US	SESSION 20 Chairperson : S. LAMMENS, Thales, NL
	Defence Architectures & Integration of Air and Missile Defence - 4	Modelling and simulation - 5	Interceptors & Weapons Systems and Technologies - 5	Sensor systems & Sensor networks, including Space - 5
16:30	18 Debris – The Great Unifier Ayala GUR, WALES, Ltd.	96 A Numerical Simulation of Radar-Plasma-Signatures of the RAM C-II Re-entry Flight Experiment René PETERVARI, Fraunhofer FHR	45 Numerical and experimental study on the solid propellant ignition at high-altitude condition Doo-Hee HAN, Agency for Defense Development	128 IR Signature Model for Space-Based Observation of Hypersonic Glide Vehicles Sebastian STABROTH, Airbus Defence and Space GmbH
16:50	123 Reflections on a Territorial Missile Defence Architecture for Europe Georg BAHMEIER, AMDC GmbH	58 SALTO – Space Early Warning simulator for analysis and operations Stephane URIEN, Airbus DS	64 Propulsion Technology Survey – Optimizing Air & Missile Defense Interceptors Doyle LAHTI, Aerojet Rocketdyne	127 The study of a European space-based missile early warning system: ODIN'S EYE Michele BONERBA, OHB System AG
17:10	79 The Benefits of centralized Multi-Tier Missile Defense Alon KAHANA, IAI		102 Coupled solid Divert and Attitude Control Systems with extensive maneuverability Pascal CAUBET, Philippe SAUNOIS, ArianeGroup	146 Operational Viewpoint of New Multifunctional Radar System Toygar BIRINCI, ASELSAN
17:30	INTERSESSION (10')			

Wednesday, June 14th, 2023

	ROOM 1	ROOM 2	ROOM 3	ROOM 4
	SESSION 21 Chairperson : D. ZETZMANN, IABG, DE	SESSION 22 Chairperson : N. GIACOMETTI, NATO, BE	SESSION 23 Chairperson : P. LE CLÉACH, Naval Group, FR	SESSION 24 Chairperson : Y. THOMAS, ArianeGroup, FR
	Defence Architectures & Integration of Air and Missile Defence - 5	CRAM, Counter UAV, GBAD & NBAD - 1	Command and Control - C2, combat cloud - 1	Lethality / Testing, Targets & Demonstration Programs - 1
17:40	16 The Impact of Missiles Sophistication Alik HERMETZ, WALES, Ltd.	116 Skyranger 30 – the C-UAS Solution Reto MAURER, Rheinmetall Air Defence AG	135 Consistent C2 system architecture for all layer air & missile defence Gerd BROSZEIT, Airbus Defence and Space GmbH	23 NATO BMD and IAMD Capability Development in coordination with national exercises Joe MAGGS, NCI Agency
18:00	90 Interoperability, System of Systems and architectures vs. the speed of relevance in procurement: opposing trends? Gunter EMRICH, IABG mbH	110 Systems Solutions and Kill Chain Optimizations in HISAR O+ Medium Range Air Defense Missile System Safa Mesut BOSTANCI, ASELSAN A.S.	109 Modular and Self-Multi-Layered Air Defense System Against Broad Spectrum of Air Threats İlker ÖZDEMİR, ASELSAN A.S.	25 Back to the future with ATBM kill mechanism Elie LEVY, Linkcom Telecom
18:20	151 Operational Effectiveness Considerations in Employing Defence Architectures Tyler DRUCE, Lockheed Martin		56 Technical advancements to meet the demands of a Future Air Defence System Sophie EVANS, MBDA	62 Development of a Flexible-Use Hypersonic Test Platform Using Sounding Rocket Delivery Vehicles Braeden CALLIS, Kratos Defense & Security Solutions
18:40	End of Sessions			

Thursday, June 15th, 2023

08:30	PLENARY SESSION - KEYNOTE SPEECH Dr. Olivier ZAJEC, Université de Lyon (FR)			
09:00	INTERSESSION (10')			
	ROOM 1	ROOM 2	ROOM 3	ROOM 4
	SESSION 25 Chairperson : N. GIACOMETTI, NATO, BE	SESSION 26 Chairperson : A. KAHANA, IAI, IL	SESSION 27 Chairperson : J. VAN HOOF, TNO, NL	SESSION 28 Chairperson : D. ZETZMANN, IABG, DE
	Testing, Targets & Demonstration Programs - 2	CRAM, Counter UAV, GBAD & NBAD - 2	Command and Control - C2, combat cloud - 2	Directed Energy Weapons
09:10	95 The COI tool HEAT and Aspects of Consequences on LEO satellites Martin GLENDE, tms mbH	40 The Changing Face of War - Nagorno-Karabakh, Ukraine and On... Azriel LORBER, RTG	34 Multi-Layered GBAD Mission Optimization System Fredri TZIMET, Omnisys	57 High-Energy Lasers Against Drone Threats Maximilian TAILLANDIER, MBDA
09:30	50 Formidable Shield 2023 - A Dutch perspective Rogier NOORLAND, Thales Nederland B.V.	54 Counter small UAS – approaches for modern battlefield scenarios Andreas HEINEMANN, Bernhard FISTERER, MBDA	88 An Industry Perspective on IMLAMD - Integrated Multi-Layer Air and Missile Defense System Claudio PONZI, MBDA Italy	85 Ultrashort Pulse Lasers to counter Hypersonic Weapons Francisco Javier CRUZ HERNÁNDEZ, TecnoBit - Grupo Oesia
09:50	27 NATO Missile firing installation Stylianos RODOUSAKIS, NATO Missile Firing Installation	119 German inner layer air defence programme NNbS – from industries perspective Bernhard MOELLMANN, Hensoldt Sensors GmbH	106 Dynamic Target Weapon Assignment and Scheduling Solution for Air Missile Defence Systems: A Multi – Objective Linear Programming Approach Göksu UZUNTÜRK, ASELSAN	72 The Requirement Management with Model Based Systems Engineering Approach in Directed Energy Weapon Systems Fehmiye YILDIZ, ROKETSAN INC.
10:10		131 PARADE C-UAS system, initiating a new generation Philippe JUGE, Thales LAS France	121 Collaborative engagement against air and missiles threat Luc DINI, Thales LAS France	24 Experimental Investigation of Correlation between Ground-Based Atmospheric Turbulence Strength (Cn2) and Meteorological Parameters during Winter Season Cafer BAYAR, Roketsan
10:30	COFFEE BREAK			
	ROOM 1	ROOM 2	ROOM 3	
	SESSION 29 Chairperson : E. LEVY, Linkcom Telecom Ltd, IL	SESSION 30 Chairperson : A. KAHANA, IAI, IL	SESSION 31 Chairperson : Y. THOMAS, ArianeGroup, FR	
	Disruptive Approaches	CRAM, Counter UAV, GBAD & NBAD - 3	Command and Control - C2, combat cloud - 3	
11:00	46 Advanced Grid Structure for Missiles with Embedded Fiber Optic Sensing Capability Ilan WEISSBERG, IAI (Israel Aerospace Industries)	61 NIAG SG265 SBAMD Study Review Jacques BLANQUART, MBDA France	147 Anti-Air Warfare Naval Collaborative Engagement – Beyond Force Threat Evaluation & Weapons Assignment Renaud BARATTE, Naval Group	
11:20	103 Open-air hardware in the loop simulation by robosim Hakan AKGUN, Aselsan	69 C-UAS ONERA Researches Laurent BARRILLIET, ONERA	48 Mastering complexity of the IAMD Command and Control through an augmented all-domain Decision-making process Gilles DESCLAUX, THALES	
11:40		76 Facing new low cost threats: a way to address this challenge Badri BADREDDINE, MBDA	84 Distributed Architecture and Technologies for Air Defense Combat Cloud Alfredo VERNUCCI, MBDA Italy	
12:00	NETWORKING LUNCH			

Thursday, June 15th, 2023

PLENARY ROOM

SESSION 32

PLENARY SESSION : ROUNDTABLE

Moderator: **Uzi RUBIN**, Begin Sadat Center for Strategic Studies, IL

13:20	124 Examination of a RUS ICBM in the Context of Missile Defence Markus SCHILLER, AMDC GmbH
13:40	143 ALBMs; history, current programmes and challenges to IAMD architectures Pierre GRASSER, Thales LAS France, Yannick JAMOT, Ariane Group
14:00	44 Threat Suppression in Support of Integrated Air and Missile Defense Herbert KEMP, OneALPHA Corporation
14:20	7 The DPRK's January 2022 "hypersonic" missile tests, an open-source analysis Ralph SAVELBERG, Netherlands Ministry of Defence
14:40	60 Maritime Supremacy and Anti-ship Threat Arthur DAIRE, MBDA
15:00	12 The Need for Comprehensive Cruise Missile Defense Uzi RUBIN, BSCSS
15:20	CLOSING ADDRESS - Conference Co-Chairs Emmanuel DELORME, MBDA - Yannick DEVOUASSOUX, ArianeGroup - Luc DINI, Thales Group
15:30	End of IAMD 2023