



CRISIS MANAGEMENT AND DISASTER RESPONSE CENTRE OF EXCELLENCE

MEET CHALLENGES ✦ SEIZE OPPORTUNITIES ✦ ANTICIPATE THE FUTURE

2018

INTERAGENCY INTERACTION IN CRISIS MANAGEMENT AND DISASTER RESPONSE

CONFERENCE INFO PACKAGE



5 – 6 June 2018
Sofia, Bulgaria

AGENDA



MODELLING AND SIMULATION SOLUTIONS FOR CIMIC AND CMDR
4 - 6 June 2018



SECURITY CAPABILITY DEVELOPMENT WORKSHOP
5 - 6 June 2018



**MSG-147 - M&S SUPPORT FOR CRISIS AND DISASTER
MANAGEMENT PROCESSES AND CLIMATE CHANGE IMPLICATIONS**
7 - 8 June 2018

Time	Activities
DAY ONE: 05/06/18 THUESDAY (Main Hall (2nd Floor))	
0830-0900	In-processing
0900-0915	Opening remarks Mr. Krasimir KARAKACHANOV – Minister of Defence of the Republic of Bulgaria Vice admiral Emil EFTIMOV – DCHOD Col. Vassil ROUSSINOV – Director CMDR COE
0915-0950	Keynote speakers (first panel) MG William HICKMAN - DCOS SACT HQ, Strategic Plans and Policy
0950-1000	Admin remarks
1000-1030	Group photo & Coffee break
1030-1230	Keynote speakers (second panel) Vice admiral Emil EFTIMOV – DCHOD Mr. Iain RICHMOND - NATO HQ, Brussels. Mr. Dirk DUBOIS - Head of the European Security Defence College, Brussels
1230-1400	Lunch Break
1400-1530	First plenary session: Security Capability Development Chair: Colonel Milen MILKOV
	<p>T ACCI CI and Security Briefing Andrei Zota, EOU, ACCI</p> <p>Innovation Platform for Security Capability Development Introduction: Innovation and Transformation – roles in the 4 quadrants Dr. Velizar Shalamanov - Bulgarian Academy of Sciences, James White - DIG – the Netherlands</p> <ul style="list-style-type: none"> • <i>Bulgarian experience in emergency management innovation for capability development since 2003: academic aspects; Scientific Coordinaiton Council and Innovation / Reserach panels; EU TACOM SEE 2006; USTDA IEMS and 112 ECS development; JTSAC and BEST; ESRIF, ACROMAS and DRIVER, DRIVER+</i> • <i>Recent developments and international cooperation: Example from the Netherlands: DIG – platform for civil-military capabilities innovation and cooperation with EU, NCIA/NSPA and CoEs; Recent developments in Bulgaria: next level in 2018; ♣ InnoCenter – industry oriented approach of 2018 in Bulgaria for digitalization ♣ ACERTA – example of academic consolidation for innovation in Cyber area. The way ahead in innovation for crisis management capability development</i> <p>Linking political risk analysis with crisis and disaster management: Methodological advances in monitoring and prediction Dr. Konstantinos Tsetsos (DEU), Bundeswehr University Munich, CDR (DEU-N) Harold Pietzschmann, Bundeswehr Office for Defense Planning <i>Recent advances in machine learning allow the monitoring of political events in near real-time. In addition, a solid database of social events in form of event data can be used to predict future developments and political risks before they occur. Linking political and social event monitoring and prediction to crisis and disaster management can enhance preparedness, awareness and resilience. The purpose of this presentation is to showcase monitoring, predictive and scenario analysis tools and to elaborate on their potential future use for crisis and disaster management.</i></p> <p>Challenges of Decision-Making Process in Crisis Management and Disaster Relief Area Dr. Stjepan Domjancic, CRO, Croatian Defence Academy, The vice-dean for international cooperation, Dr. Dijana Gracin, CRO, Ministry of Defence.</p>

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	<p><i>Change of the missions of the military organization and with that of the officers' role has driven to intermingling of the military and political issues. An officer is forced to deal with complex political-strategic issues which have great implications for decision-making process. Like any other organization, a military organization presents a dynamic organism, and thus the civil-military relations are subject to certain dynamism. Military organizations are changing over time, in response to changing conditions. Key factors influencing the transformation of the military profession are: the growing importance of the role of technology, the weakening of social isolation of the Military etc. These changes have resulted in the weakening of the boundaries between the military and civil society and they set targets for the military organization to participate more actively in the broader social context. Participation of Military in support of civil institutions and citizens in situations of major natural, technical-technological and other accidents and catastrophes is important due to the respectable capacities of the Military, which can be used in these activities (the rationality principle), and due to the strengthening the link between the Armed Forces and society (Military showing its general social usefulness). However, in those situations Military cannot become</i></p> <p>Informational technologies impact over security environment LTC Stoyan Chervenjakov, JFC-J5 BGA</p> <p><i>In spite of the peace efforts on all possible levels, the world in 21 st century is remaining one extremely dangerous place with many active and potential points of conflict. Contemporary security environment is influenced not only by military, but also by other factors such as poverty, inequality, poor healthcare, educational deficits, dramatic climate change and scarcity of natural resources which lead to problems in local social policies, and as a final content resulted in long-term geo-political tension and conflicts. These issues need complete package of complex and persistent efforts on every field and any stage in the development of human society, with using of comprehensive tools and approaches.</i></p> <p><i>Information technologies and systematic observation and analysis of a data (geo-data sub-systems, satellite communications) are just technical opportunities, based on some information flows, rely on information and expose (illustrate) implementation impact of information technologies over security environment, and living sphere in general.</i></p> <p>Steve Recca – Pacific Disaster Centre</p>
1530-1545	Coffee break
1545-1715	<p>Second plenary session: Climate Change - Security Nexus Chair: Colonel Milen MILKOV</p> <p>How climate change affects European security LTC Stoyan STOYANOV PhD, Expert CMDR COE Education & Training Branch</p> <p><i>This paper studies contemporary climate change as a human-induced phenomenon which will cause significant changes in global security environment. Europe will be affected directly to global warming as extreme sudden and slow-onset weather events hit the continent. On the other hand, people in specific regions of the globe will be much more affected by lack of vital resources and this will force them to move. Europe is to be one and most probable option for those looking salvation and this will be a great challenge to policy and decision makers in the Union. The research paper pays more attention to some of the indirect impacts to European security and searches possible solutions - what immediate mitigation and adaptation measures to climate change impacts are necessary.</i></p> <p>Impact of solid waste handling on the Climate Change Maj Iliyan Hutov, PhD, Aide-de-camp of JFC Commander</p> <p><i>Should we burn or bury waste plastic? The impact of plastic waste handling on the environment. Incineration of plastic waste in an open field is a major source of air pollution. Most of the times, the Municipal Solid Waste containing about 12% of plastics is burnt, releasing toxic gases like Dioxins, Furans, Mercury and Polychlorinated Biphenyls into the atmosphere. Further, burning of Poly Vinyl Chloride liberates hazardous halogens and pollutes air, the impact of which is climate change. A new technology as a sustainable step towards tomorrow's cleaner and healthier environment needs immediate attention of the environmentalists and scientists</i></p>

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	<p><i>Desertification a threat for the Earth, impact on Greece</i> Anastasios VASILEIOU, CMDR COE <i>Definition, Historical Background, desertification main causes and process. Desertification in the Mediterranean countries and the impact on Greece.</i></p> <p><i>Climate Change and Security - Education and training as an important part of climate change awareness enhancement, and its impacts on defence and security</i> Col. Milen Milkov, LTC Stoyan Stoyanov, PhD, CMDR COE <i>Climate Change serves as an accelerant of instability or a threat multiplier that makes already existing threats worse. Climate change is drawing unprecedented international attention because it impacts nearly all domains and is a compounding factor for other existing issues. One of the implications for military is the Education and Training. Definition of some requirements derived from possible future tasks concerning security impacts of climate change.</i></p>
1715-1730	Wrap-up Day 1
1800-2000	Icebreaker
DAY TWO: 06/06/18 WEDNESDAY (Main Hall (2nd Floor))	
0900-1030	<p>First plenary session: Future Crisis and Disaster Response Operations Chair: Colonel Aleksandar GEORGIEV</p> <p><i>Exploring the phenomenon of Fake News and its implications in the Crisis Management</i> Colonel Aleksandar GEORGIEV, CMDR COE Analysis and Lessons Learned Section Head</p> <p><i>South Eastern Europe Brigade (SEEBRIG) Presentation</i> LTC Nikolaos Karageorgos, Chief G2 SEEBRIG Mission, tasks, structures and capabilities</p> <p><i>History of humanitarian coordination during disaster and implications for the future.</i> Mr. Jeff Miller, Humanitarian Assistance Advisor/Military in USAID - Office of U.S. Foreign Disaster Assistance</p> <p><i>The Application of Satellites In Modern Crisis Management, Monitoring And Disaster Relief Efforts</i> Mr. Ivan Dimitrov, Mr. Miroslav Dimitrov, PhD Milen Ivanov, Assoc. Prof. Georgi Baev, National Military University <i>Today humanity is intertwined with modern technology on a level never seen before. As environmental and anthropogenic disasters remain one of the biggest threats to the existence of humans as species, the nations of our planet started using a huge amount of modern technologies such as satellites for monitoring harmful events, early warning and for the reduction of negative influences of the mentioned above on modern society and everyday life. As satellites have proven themselves as one of the most effective tools in monitoring of hazardous events, humanity as a whole started to invest a lot of resources in their enhancing as an instrument in the disaster response and effect reduction processes.</i></p> <p><i>Space Debris as an Emerging Threat: Possible Scenarios</i> Nikolay Tomov, Chairman BULSIM, Board Director CASTRA, Dr. Vesselin Vassilev CEO CASTRA, Dr. Irena Nikolova <i>In the last sixty years the space exploration produced thousands of debris flying around the planet Earth. The growing number of commercial rocket launches each year will make the "Space junk" picture even worse. A crisis caused by an uncontrolled satellite is not a science fiction any more. Few possible scenarios and risk mitigation approach are presented with the idea to attract the attention of the authorities responsible for the prevention of crises</i></p>
1030-1045	Coffee break
1045-1230	<p>Second plenary session: Future Crisis and Disaster Response Operations Chair: Colonel Aleksandar GEORGIEV</p>

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Enhancing the Resilience of Critical Infrastructures in the Republic of Bulgaria and the Former Yugoslav Republic of Macedonia*: The Role of the Legal and Strategic Framework

Prof. Stefan HADJITODOROV, Nikolay PAVLOV, Atanas RADEV, Ana SOKOLOVSKA and Ljupcho KOCAREV, Bulgarian Academy of Science

The article analyzes the legal and strategic framework for the protection of critical infrastructure in the Republic of Bulgaria and the Former Yugoslav Republic of Macedonia. The paper's focus is on the role of the legal and strategic framework for enhancing the resilience of critical infrastructures in two neighboring South-East European countries – one of them a new EU Member States and the other an applicant for the EU and NATO. The research problem is important because the protection of critical infrastructure is an essential element of national and regional security policy and ultimately allows effective exercise of the rights and freedoms of citizens in the two friendly states. The disruption or destruction of critical infrastructure systems / sectors / subsectors may lead to a collapse in the state and society and stop their normal functioning. Critical infrastructure protection is an administrative-managerial and operational activity that enables active bilateral cooperation, especially in the context of the accession other countries to the European Union and NATO.*

Fusion of education, training and practice experience opportunities to develop disaster response capability.

Major David Bates, 77th Brigade, Force Troops Command, British Army

There is a plethora of academic and training courses on the market and opportunities for individuals to gain experience in the field of disaster response through simulation or real deployments. The author will explore these using his own recent experience of providing reach back to troops deployed on Hurricane relief in the Caribbean last year, facilitating exercises and teaching. He will propose ways that fusion might be achieved and capability developments measured using tools like those used to assess technology readiness.

A Comprehensive Approach to CMDR – meeting future challenges by engendering a change in mind set today

Gergana Vaklinova, CMDR COE

Towards a Resilient Future - options for Bulgaria and Romania

Mrs. Denitsa Hinkova, Assistant Professor in Sofia University, BGR

The paper will analyze the contemporary research on innovations and digital applications in disaster risk reduction (DRR), as well as resilience capacity building, which might be suitable for application in Bulgaria and Romania. The recent advances in technology and scientific research in the field will be outlined in order to draw recommendations for applications in EU countries. A special comparative perspective on Bulgaria and Romania is used, in order to highlight optional approaches for improved interagency interaction and enhanced resilience capabilities.

Organization for Security and Co-operation in Europe (OSCE)

Mr. Tarik NDI, ANALYST/RESEARCHER, Conflict Prevention Centre

The Organization for Security and Co-operation in Europe (OSCE) was established to foster peace, stability and security. The OSCE is widely recognized as a flexible soft-security organisation. While the 1992 Helsinki Document provides the OSCE with a mandate to carry out both civilian and military peacekeeping, the Organization has never deployed formed police or military units. Recent experience has demonstrated the need to enhance the OSCE crisis-response capacities, taking into account the evolving character of threats, crises and conflicts. A lesson identified from the OSCE's response to the crisis in and around Ukraine highlighted a discrepancy between current OSCE capabilities and those required to conduct missions in high-risk security environments. Complex peace operations could be deployed along different phases of the conflict cycle and would be equipped with tailored assets and resources. Close cooperation and a collaborative and comprehensive approach among leading international peace and security organisations is paramount to achieving the agreed objectives of any OSCE activity in future complex crisis situations.

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1230-1330	Lunch
1300-1530	<p>First plenary session: Best practices in support of CMDR decision-making Chair: Colonel Orlin NIKOLOV</p> <p><i>Driver+ Taxonomy of Crisis Management Functions: A Tool for Comprehensive Exploration of Requirements and Solutions</i> Prof. Todor Tagarev, Centre for Security, Amb. Valery Rachev, Defence Management, Institute of ICT, Bulgarian Academy of Sciences <i>Within the DRIVER+ project (Driving Innovation in Crisis Management for European Resilience, GA # 607798) the authors led the development of a Taxonomy of Crisis Management Functions. The main purpose of this development is to bridge the community of Crisis Management (CM) practitioners and the developers and providers of solutions. Practically, it supports the classification of CM needs and gaps; Trials; Solutions; and other related information, and to facilitate the navigation of the Driver+ online platform, queries, delivery of prioritised lists of solutions and suggestion of other relevant information. This report will present the taxonomy, will demonstrate its use within the DRIVER+ project, and ideas how the taxonomy can be used in the comprehensive exploration of requirements to future crisis and disaster response operations and in the support to decision-making.</i></p> <p><i>M&S in Support of Decision Makers in Crisis and Disasters Management</i> Col.Orlin NIKOLOV, PhD (BGR), CMDR COE, LTC Kostadin Lazarov, CMDR COE, CDR (DEU-N) Harold Pietzschmann, Bundeswehr Office for Defense Planning <i>The aim of the project is to develop a reference architecture and demonstrate a technical platform that enables prompt, reasonable and effective tests of Crisis/Disaster and Climate Change Implication (CCI) Response plans. Topics which to cover are: Database for storage and management of the information and data related with crisis and disasters; Capability for determination of players, objects, infrastructures, systems.; Capability for implementation of control logic (command and control system, decision making and supporting system); Capabilities for modeling and simulation of crisis and disaster events for education and training purposes; Artificial intellect for simulating actions of individual or collective players; Report generating module for the environmental parameters; Integration with other used in NATO software tools.</i></p> <p><i>Technologies and Actionable Knowledge for Disaster and Climate Change Resilience of Urban Environment</i> Lt. Col. Walter David, NATO M&S Centre of Excellence, Italy; Judge Brindusa Andreea Sarbu, First Court District Bucharest Ministry of Justice, Romania; Dr. Ilias Gkotsis, Center for Security Studies Ministry of Interior, Greece; Dr. Athanasios Sfetsos, National Centre for Scientific Research "Demokritos", Greece <i>The optimal decision making in urban crisis and disasters requires updated situational awareness, information exchange and interagency coordination. This is a critical element to increase system's resilience under pressures, such as population growth and climate change. To model highly complex and interconnected systems, like cities, advanced GIS-based simulation tools are presently state of the science models. The authors propose an innovative approach for assessing city disasters, by exploiting interoperable GIS models, historical datasets, hazard and climate models, simulations, risk assessment and interconnection analysis processes</i></p> <p><i>Serious Games for Crisis Management and Disasters for Police and Fire Departments trainings</i> Angel Venkov, VP Global Sales, COHERENT LAB</p>
1530-1545	Coffee break
1545-1700	<p>Second plenary session: Best practices in support of CMDR decision-making Chair: Colonel Orlin NIKOLOV</p>

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	<p><i>The Capability Quotient (by VTC)</i> Mr. Joel Thomas, Ms. Alexa Squirini CEO SPIN Global, USA <i>This paper introduces the concept of “Capability Quotient” (CQ) in the contexts of emergency preparedness and response. The Capability Quotient has been studied in other research fields such as health and psychology, but never before has the Capability Quotient been used in the emergency preparedness and response fields. This paper will delve into what research already exists on the Capability Quotient, and how it relates and/or differs from the definitions and examples presented in this paper. This research makes the case for measuring the Capability Quotient of responders, and focuses on the mission, value proposition, saving lives and property and the economy of resources. Furthermore, the authors include a summary of the current state of responder capabilities and make the case that maturity is an area that requires development. Emergency response providers include, “federal, state, and local public safety, law enforcement, emergency response, emergency medical (including hospital emergency facilities), and related personnel, agencies, and authorities,” as defined by the Homeland Security Act of 2002.</i></p> <p><i>Modern update of the local estimation of the seismic action on structures in Bulgaria</i> Mihaela Kouteva-Guentcheva, Assoc. Prof., PhD, Civ.Eng, University of Architecture, Civil Engineering and Geodesy</p> <p><i>GIS as a platform approach for supporting the CMDR decision-making</i> Miglena Kuzmanova, Business Development Manager ESRI Bulgaria <i>Modern spatial technologies play crucial role in CMDR decision-making. The paper will present how GIS when applied as integrated platform approach ensures timely and adequate information and analytical capabilities to all stakeholders being a technological driving force for the processes from proactive risk management and prevention to reaction and recovery.</i></p> <p><i>Modelling and Simulation solutions for CIMIC and CMDR</i></p>
1700-1715	Wrap-up Day 2
1715-1730	Closing remarks
<p>DAY TWO: 06/06/18 WEDNESDAY (Main Hall (1st Floor)) SECURITY CAPABILITY DEVELOPMENT WS (Invitees ONLY!)</p>	
<p>04- 06/06/18 - Modelling and Simulation solutions for CIMIC and CMDR (Invitees ONLY!)</p>	
<p>07- 08/06/18 - MSG 147 - M&S Support for Crisis and Disaster Management Processes and Climate Change Implications (Invitees ONLY!)</p>	

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