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<td>0830-0900</td>
<td>In-processing</td>
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<td>0900-0905</td>
<td>Admin remarks <strong>CIV Stanislava KRAYNOVA</strong></td>
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| 0905-0930  | Opening remarks  
**Col Orlin NIKOLOV** - Director CMDR COE  
**LtGen Atanas ZAPRYANOV (Ret.)** – BGR Deputy MoD                                        |
| 0930-1040  | Keynote speakers (first panel)  
**LtGen Atanas ZAPRYANOV (Ret.)** - BGR Deputy MoD  
**BGen Philippe BOISGONTIER** - ACT Staff Element Europe, Deputy Assistant Chief of Staff, Defence Planning  
**Vice Admiral Emil EF TIMOV** – BGR DCHOD, “Effective Management, Coordination and Interaction of the Military Forces in Disaster Response” |
| 1040-1120  | Group photo & Coffee break                                                                                                                  |
| 1120-1230  | Keynote speakers (second panel)  
**Col Dariusz MAJCHRZAK** - Assoc. Prof, vice rector of War Studies University, Warsaw, “Challenges of Crisis Management from Military and Non-military Perspective”  
**Mr Patrick ANDREWS** – International Staff, NATO HQ, Brussels  
**Mr. Dirk DUBOIS** – Head of the European Security Defence College, Brussels |
| 1230-1400  | Lunch                                                                                                                                          |
| 1400-1600  | Panel Discussion: Conceptualising resilience – enabling future CMDR  
**Chair: CIV Gergana VAKLINOVA**  
**Panelists:**  
Prof. David CHANDLER, University of Westminster  
Mr. Florian ROTH, ETH Zurich  
LTC Jan SABINIAZ, NATO CCOE, the Hague  
LTC LAZAROV, OpsLab Section Head, CMDR COE  
**Aim and format:**  
The aim of the panel is to explore the multi-faceted, multi-disciplinary and often – obfuscating, concept of **resilience** in light of future crisis management and disaster response (CMDR), bridging theory and practice, tools and actors, level of ambition and reality, ultimately testing the practical utility of resilience. The panel will be structured in the form of a moderated discussion, featuring prominent, both military and civilian,
professionals in the field addressing different aspects and organisational practices of resilience. The 90-minute discussion will provide an opportunity for open Q&As, which will flow into the second part of the panel, where conclusions and recommendations will crystalize key take-aways for future CMDR.

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<td>1630-1700</td>
<td>Panel Discussion Cont’d</td>
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<td>Modelling and simulation for resilient CMDR – DEMO</td>
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<td>Conclusions, recommendations and key take-aways</td>
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<td>Icebreaker</td>
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**DAY TWO: 06/06/19 THURSDAY**

First plenary session: Implication of Global Changes on Security

**Chair: Colonel Dariusz DOBRON**

*Introduction to the panel: “Short intro pointing how global changes in areas of politic, human, technology, economy and environment could challenge security situation”.*

**Panellists:**

**COL (ret) Prof. Maciej MARSZAŁEK, War Studies University, “Armed Forces Contribution to Future Humanitarian Operations”**

The right to receive humanitarian assistance has been widely recognised and accepted by the international community for a long time. For many years, they are foundations in the international law system, which oblige states not to impede the delivery of the humanitarian assistance by the international organisations to the people whose life is in danger. It applies both the international and internal crisis situations. Thus, humanitarian operations are considered by both civilian and military security experts as one of the most important type of the crisis management operations of the North Atlantic Treaty Organisation. Even despite the fact, that the military forces have never been – and most probably it will remain so in the future – the crucial element of such operations. It applies both to the national armed forces of each state and a group of allied armed forces in case of humanitarian operations of higher intensity. While discussing the future of such undertakings, it is reasonable to assume that the climate changes will be a cause of even more weather anomalies and natural disasters of catastrophic consequences. These outcomes will require broader engagement of the armed forces, which will have to use its maximal capacity to support civilian institutions and organisations devoted to the crisis management and non-military crisis situations.
LTC Walter DAVID, Ronin Institute Montclair NJ (Co-authors: Col. AF Paolo Pappalepore, Italian Defense General Staff/Deputy Chief Juridical Office; Judge Elena Rozalinova, City Court Sofia; Judge Brindusa Andreea Sarbu, First District Court Bucharest) “The Rise of the Robotic Weapon Systems (LAWS) in Armed Conflicts”. Disruptive technologies like robotics and artificial intelligence (AI) are changing workplaces, business and support disaster management; however they are also going to transform warfare. Future technologies can be assessed with the Disruptive Technology Assessment Game and war gaming with military and technologists analysing their impact on operations and defence planning in Doctrine, Organization, Training, Materiel, Leadership, Facilities, Personnel and Interoperability. LAWS efficiency, effectiveness and speed of decision compared with that of the human brain, can lead to the reduction of deployed human soldiers, and minimize loss of civilians and damage of infrastructures. However, the deployment of weapons that will be more and more autonomous from the human control poses ethical issues, highlights gaps in the international humanitarian law (IHL) and present major risks to security related to their potential uncontrolled proliferation.

Mr Anton PULIYSKI, Mrs Alexandra STEFANOVA, United Drone Community Association “Drones & AI: Increasing accessibility of emerging technologies and security”
The accessibility of drones, in financial and technological terms, and its connection with their increasing numbers in the airspace; unmanned aircraft systems and open source AI technologies for deep machine learning; security issues and consequences arising from the increased number of self-build and self-programmed non-military drones in the airspace; possible misuses of drones and AI.

1045-1100 Coffee break

Second plenary session: Implication of Global Changes on Security
Chair: Colonel Dariusz DOBRON

Panellists:
Mr Jeff MILLER, Office of US Foreign Disaster Assistance (OFDA), “A Framework for Evaluating Civil-Military Effectiveness during Disaster Response”.

Mrs Ralitsa BAKALOVA, Bulgarian Air Force Meteorological Centre (BAFMC), "Anthropogenic and natural factors of climate changes" We can observe indications that in many places global warming is likely to increase the frequency and duration of extreme weather events. Temporal changes in the probability of extreme weather events, their magnitude and scale, the importance of informed social and political decision – makers leading to adequate climate – change adaptation strategies.

Mr Amar CAUSEVIC, Royal Swedish Academy of Sciences (RSAS), “NATO in the Anthropocene: Emergence of the tipping elements and associated security challenges” The Anthropocene defines Planet Earth’s current geologic era in which human activity has been the dominant factor in influencing the Earth system processes such as climate and the environment. Introduction of the Anthropocene, and its main characteristics emphasizing important role humankind represents in this geological era. Outline qualitative and quantitative risk analysis of impacts originating from the emergence
of tipping elements on the critical biomes that support humanity. Examine NATO's modus operandi for addressing emerging and non-traditional security challenges, the focus being on climate change.

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| 1230-1400 | First plenary session: **Collaborative Interaction – Implications on Security**  
**Chair: Colonel Dimitar DIMITROV**  
**Panelists:**  
Mrs Plamena Koburova (BGR MoD), “NATO – EU interaction – different scenarios” and Ms Aglika Atanasova (CMRD COE), “NATO – EU Cooperation in Crisis Management” - Coordinating missions and operations  
In the current dynamic security environment characterized by various multifaceted threats interagency interaction between the EU and NATO is a highly relevant topic. To put it proverbially, interaction is not only desirable, it is inevitable especially from the perspective of shared values and facing common threats. However, the reality of interagency interaction between the two actors presents multiple challenges to implementing effective cooperation.  
To date, the main approach to coordination between the EU and NATO in missions and operations was largely based on deconfliction (i.e. avoiding contradictory purposes) rather than joint planning or joint action. However, this paper argues that when it comes to interagency interaction a deconfliction approach leads to varied results and a very illustrative example in that sense is Afghanistan where both the EU and NATO had police training missions with mixed overall results.  
Therefore, this paper argues that further synergies between the two organizations in missions and operations will bring real added value and result in more tangible results for both of the institutions. The new “level of ambition” for EU-NATO cooperation based on the EU-NATO Joint Declarations of July 2016 and July 2018 makes clear that deconfliction is no longer a viable option when it comes to facing common threats together and paves the way towards greater complementarity.  
However, despite of the two joint declarations on strategic partnership, the framework for cooperation leaves a lot of room for improvement.  
This paper analyzes the existing cooperation framework - identifying both the obstacles to effective cooperation and the opportunities for improving cooperation focusing on examples from missions and operations.  
**Mr Tarik Ndifì, (OSCE)** - “The OSCE’s comprehensive approach to security”  
The OSCE’s understanding is that security can only be maintained or restored if the interests of all concerned states are taken into account. While the OSCE has been closely cooperating with other international actors from its onset in the 1990s, also the mandate of each field operation has to be taken into account, which often requires co-operation with other stakeholders on the policy and working level, such as with the European Union, the Council of Europe, UN agencies, or NATO. The OSCE’s understanding of comprehensive security adds to this approach as security is understood to touch not only on its political-military aspects, but also on the economic, the environmental, and the human dimension of security.  
In areas where the OSCE established one of its 16 field operations, the Head of the respective mission is encouraged to seek synergies with other stakeholders to make best use of available resources. This, in addition to the intrinsic motivation to closely co-operate with other international actors, helps to work in a complementary way that allows for the best use of each organisation’s capabilities and capacities.  

1400-1530 | Lunch |
Co-operation is hence to be seen as a necessity to achieve an efficient implementation of mandated activities in the OSCE’s work.

**Mr Steve Recca and Dr Joseph Green, (PDC), “Managing Risk in a Multi-Agency, All-Hazard Environment”**

Understanding and managing risk in complex, multi-agency and multi-hazard environments is essential to national and alliance security planning. This presentation will discuss an assessment model designed to provide a comprehensive understanding of risk and disaster management capabilities through evidence-based decision making. Using a stakeholder-driven approach, the assessment model facilitates the integration of national security and disaster risk reduction goals into the Risk and Vulnerability Assessment (RVA) methodology. The PDC RVA is a dynamic and flexible model leveraging existing open source, regularly updated data to represent aspects of the government and civil society networks to enable consideration of a wide assortment of attributes that are relevant to assessment of resilience and vulnerability. The outlined approach (and many adaptations) can support NATO members engaged in planning for natural hazards or human-induced security events.

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<td>Coffee break</td>
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| 1545-1700 | Second plenary session: **Collaborative Interaction – Implications on Security**  
**Chair: Colonel Dimitar DIMITROV**  
**Panelists:**  
**Assoc. Prof. Geoirgi Penchev (UNWE) - “Possibilities for Automation of Economic Assessment of Direct Disaster Losses”**  
The paper is aimed at presenting the proof-of-concept system for automated direct disaster losses, developed within a scientific project of University of National and World Economy, Sofia. The idea behind the project was to create a system that can be used by customers without expert knowledge on physical or economic modelling of disaster effects. Thus alleviating the initial phases of disaster planning in administration, providing raw picture of disaster threats. The article describes in general conceptual and physical schemes of the system and gives main requirements for data and GIS applications that can be used. The process of developing such system shows that it is a complicated, but possible task. The system is not production ready and it is implemented with one physical model for floods. Nevertheless, the possibility to use and reuse the physical model by automation of main model estimation phases gives opportunity for creation and assessment of different alternatives for disaster prevention and relief.  
**Mr Tcvetan Tcvetkov (UNWE) –“Contemporary Tools for Security Assessment”**  
The research project “Contemporary Tools for Security Assessment” was carried out by a research team from the Department of National and Regional Security and the Center for Strategic Studies in Defense and Security at the University of National and World Economy. 26 researchers took part in it.  
The project is implemented in three stages, related to the analysis of the global and European experience in security assessment, development of models for assessment of different aspects of security and approbation of the models in the conditions of Bulgaria. It started in 2013 and ended in early 2016.  
The main security aspects for which models were developed are as follows: human security, military security, security of personal data,
security of large settlements, energy security, information and cyber security, environmental security, demographic security, and corporate security. A summary model for security assessment has also been developed.

Mr Ivan Dimitrov (NMU), Veliko Tarnovo – “Research on the evaluation of Post-Crisis Recovery of Affected Terrain through the integration of unified GIS Monitoring System”

In the context of the ever-increasing complexity of the security environment throughout the planet it is of utmost importance for the state actors and intergovernmental organizations alike. In order to monitor the trends of the current security situation one of the sources of valuable data that can enforce effective stability building and influence decision making in the field of global and regional security is connected with harvesting information in connection to the recovery of post-conflict or crisis areas. Thus, decision making in the full spectrum of command can be influenced positively on the impact of the future decisions taken in order to create more stable environment for all the actors in the field of security. To increase the whole efficiency of such data mining processes a unified, state-of-the-art complex GIS system can be incepted by NATO and EU states to boost the collective information gathering and monitoring of numerous changes in areas affected by anthropogenic or natural disasters.

Ms Alexa Squirini (SPIN Global LCC) - “Harmonizing Global Disaster Resilience Assessment Methods and Data” WebEX.

SPIN Global will present the findings of research conducted in partnership with Tulane’s Disaster Resilience Leadership Academy, wherein the following questions have been investigated from an academic perspective: What disaster resilience assessments exist now? Is there any way to group assessments by category? What is their intended purpose? What is the intended place and time of use? Impetus for use? Target audiences? Definitions of nomenclature? Intended outcomes?

The intended result is to develop a harmonized approach informed by academic research to assess national and sub-national capacities, and to share data and insights to inform best practices and working models that tangibly and defensibly improve disaster resilience.

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03-04/06/19 - MSG 147 – Limited Object Experiment (LOE 3) Main Planning Conference (Invitees ONLY!)

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