

TIEMS DCEM 2016 Conference in Ukraine

October 7th, 2016, is the birthday of the new TIEMS chapter, namely, the TIEMS UKR Chapter in Ukraine. A group of the enthusiastic founders of this chapter decided to make a quick move after the final acceptance and organize the welcome event as soon as possible. Following the 1st TIEMS Conference on Disaster Control and Emergency Management Testbed Platform (TIEMS DCEM 2011), which was held on June 13-14, 2011, in Finland, and the 1st International Conference on Secure Society in Ukraine SESOCUKR 2014, which was held on November 18-21, 2014, the TIEMS Ukraine Chapter organized the 2nd TIEMS Conference on Disaster Control and Emergency Management (TIEMS DCEM) on October 12-13, 2016, in Ukraine.

The timeslot was not selected randomly. It was decided to run the conference at the same time on the same venue when and where the other annual major events on safety, security and defense took the place on October 11-14, 2016, in Kyiv, the capital of Ukraine. Those other events were the following: The XV International Exhibition Forum PROTECTION TECHNOLOGIES 2016, The X International Trade Fair FIRETECH 2016, The X International Aviation and Space Salon AVIASVIT-XXI, The XIII International Exhibition ARMS AND SECURITY 2016, The 2nd International Conference on Secure Society in Ukraine SESOCUKR 2016 as well as The XVIII National Conference "The Current State of Civil Protection in Ukraine: An Integration Roadmap to Europe".

Coincidentally, the show celebrated the 100th anniversary of the first firefighting engine in Ukraine. The commemorative coin of 5 hryvna (limited edition by The State Treasury of Ukraine) and the commemorative stamps (limited edition by UkrPost) were exposed to public at the opening ceremony.

The conference was supported by The State Emergency Service of Ukraine (Ukrainian: Державна служба України з надзвичайних ситуацій; until 24 December 2012 the Ministry of Emergency Situations of Ukraine (Ukrainian: Міністерство надзвичайних ситуацій України)). Nowadays, The State Emergency Service of Ukraine is governed by the Ministry of Internal Affairs. The event was hosted by The Ukrainian Research Institute for Civil Protection in Kyiv.

The organization team involved the international experts from Finland, Lithuania, Norway, Estonia, USA, UK, Slovenia, Slovakia, Poland, Czech Republic, Belgium as well as a large number of Ukrainian experts. Their flexibility and contributions to the technical program were very much appreciated by the domestic organizers. The conference was by invitation only.

Figure 1. From the left the Minister of Internal Affairs Arsen Avakov, the Secretary of the National Security and Defence Council of Ukraine, a former acting President of Ukraine, Oleksandr V. Turchynov and the Minister of Defence of Ukraine General of the Army Stepan T. Poltorak are opening the entire show.



Figure 2. From the left the front row Major-General Vitaliy Kropyvniyskiy (Director-General of

the Ukrainian Research Institute for Civil Protection), Major-General Mykola Chechetkin (Head of The State Emergency Services of Ukraine), Oleksij V. Takhtaj (Deputy Minister - Chief of Staff, Ministry of Internal Affairs of Ukraine) and Anatoli Tkachenko (the CEO of the International Exhibition Centre in Kyiv).

The second row Professor George Markowsky (TIEMS HQ, USA), Professor Andre Samberg (President of TIEMS UKR Chapter), Viktor Zaivenko (Director of Cash Circulation Department of the National Bank of Ukraine).



Figure 3. The Brass Band of The State Emergency Service of Ukraine at the opening ceremony dedicated to the 100th anniversary of the first firefighting engine in Ukraine and the front side of the coin

Figure 4. Major-General Vitaliy Kropyvniyskiy (on the left) (Director-General of the Ukrainian Research Institute for Civil Protection) receives the award from Major-General Mykola Chechetkin (Head of The State Emergency Services of Ukraine) for the development of the light marine fire fighter boat for operation near the shoreline where traditional marine fire-fighting vessels and other equipment cannot reach.





Figure 5. Dr. Aleksander F. Nikulin (on the left) (Managing director, Ukrainian Scientific Park “Civil protection technology transfer center”, Ukraine) receives the award from Major-General Mykola Chechetkin (Head of The State Emergency Services of Ukraine) for the best technical innovation in the field of quick cleaning up of oil spill in sea water.



Figure 6. Major-General Mykola Chechetkin (on the left) (Head of The State Emergency Services of Ukraine SESU) and Professor Andre Samberg (President of TIEMS UKR Chapter) in the headquarter of the SESU during the meeting of the strategic working group of the SESU and TIEMS UKR Chapter.





Figure 7. Delivering the TEIMS certificates to the founding members of TIEMS UKR Chapter and the first two TIEMS institutional members in Ukraine by Professor Andre Samberg (President of TIEMS UKR Chapter) and Professor George Markowsky (TIEMS HQ, USA)



Figure 8. Oral presentations



Figure 9. At the exhibition: Medevac ambulance version of Antonov-148 airplane (the manufacturer the Antonov corporation, Ukraine)

The event brought together some 80 government officials, state owned research institutions, private enterprises and volunteer organizations to review the state-of-the-art of civil protection in Ukraine, expand capacity to address current and future development challenges and place national strategies in a global context. It also provided a valuable networking opportunity and set the stage for further cooperation among TIEMS UKR Chapter and The State Emergency Services of Ukraine.

The conference began with opening remarks by representatives of the Ukrainian Research Institute of Civil Protection, the Scientific Centre for Aerospace Research of the Earth of Institute of Geological Science of National Academy of Sciences of Ukraine, and the NATO Liaison Office in Ukraine. More than 30 oral presentations were delivered by various experts.

Professional development program manager lieutenant-colonel Ove Urup-Madsen from the NATO Liaison Office in Ukraine shared his experience and described the obstacles in the top management culture at the governmental level. He highlighted the need to strengthen the leadership capacity, expand the efficiency of training and fully utilize domestic professionals as a positive and transformative force for the future of the country. He also identified the following key factors needed:

- English language
- Electroning office and document management
- International advisors embedded in the daily work
- Step-by-step modular approach
- HR principles
- Invest in the youth but don't forget the seniors
- Patience and empathy

A number of good quality presentation touched on space-borne monitoring of radiation of such exclusion zones as Chernobyl. It has been reported that one of the main reasons of radioactive pollution are forest fires. The level of radiation in the atmosphere up to 10 km increases during those fires and would remain steady for a long period of time. Fire fighters are looking for rapidly deployable light-weight equipment which would allow large-scale monitoring. Interesting approaches were presented using UAV fleet (Unmanned aerial vehicle).

National experts and scientists expressed their increasing concern with regard to the natural disasters which are foreseen in the eastern part of Ukraine. The whole mining ecosystem of the Donbas region is affected in the following way. The Ukrainian government has stopped financing the coal mines located in the secessionist territories. The conflict has disturbed the coal-coke-metal vertical integration systems built there since 1991. Many of the system's components are located in the "gray zone" between government- and secessionist-controlled areas, as well as in the Russian side of the border. Because of the ongoing armed conflict, there is an estimation that only 23 mines of 82 active mines in the Donbas region remain in territories controlled by Ukrainian authorities. Many mining premises were flooded as a result of interruptions in electricity supply. The drawn out nature of the conflict has significant costs to local populations more saliently through destruction of local infrastructure and the degradation of the environment. With the intermittent collapse of the electricity supply across the entire conflict area, ventilation systems and water pumps in coal mines failed, resulting in the release of accumulated gases after ventilation restarted. The often irreparable flooding of mines not only damages installations but also waterlogs adjacent areas and pollutes groundwater. Permanent or temporary flooding has been reported at more than ten mines, yet due to the lack of

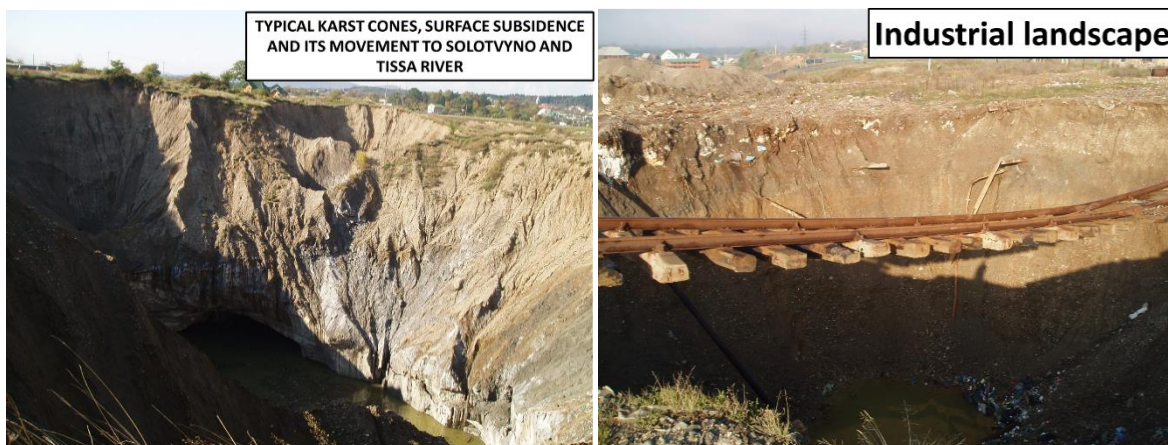
uninterrupted monitoring and fieldwork to assess the damage, the exact extent of the risks to environmental and public health is unclear. At the moment, relatively little is known about the direct chemical impact of the war on the environment and people. , large quantities of damaged military equipment and potentially hazardous building rubble will require disposal.

The Ukrainian Ministry of Defence also raised concerns that depleted uranium weapons may have been used in the fighting around Donetsk airport, and proposed to determine whether this was the case when conditions allowed. The conflict has also damaged the region's numerous nature protection areas, from armed groups occupying their administrative buildings to the impact of fighting and the movement of heavy vehicles within nature reserves. The restoration of large tracts of agricultural and other land for normal cultivation and use will require considerable effort too, and will be complicated by the presence of new minefields and unexploded ordnance. As is common for armed conflicts in heavily developed areas, a large proportion of the pollution impact may not come directly from the fighting but from damage to industrial infrastructure and to the disruption of everyday economic activities.

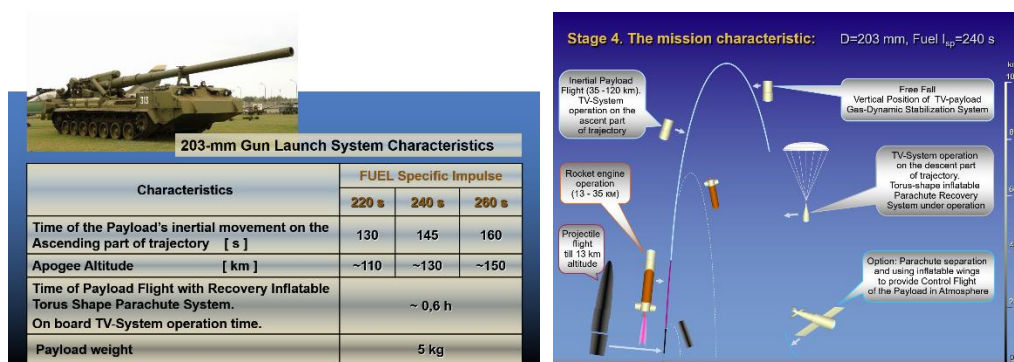
Dr. Evhen Yakovlev reported about the first results of the joint mission with The Directorate General for European Civil Protection and Humanitarian Aid Operations of the European Commission (DG ECHO) organized a four-day scoping mission between 4-7th of July 2016 to Solotvino (Ukraine), where the abandoned and neglected salt mine poses a significant contamination threat of the Tisza River and also threatens the livelihoods of those living in the region. The five-member scoping mission team was made up of British, Finnish, French, Hungarian and Latvian experts.

A few years ago, a significant amount of salt concentrate was measured on the Hungarian section of the Tisza River, which gave the situation at Solotvino an important cross-border element. The current state of affairs at the site requires quick and efficient measures that will provide secure housing to those living in Solotvino, and will also mitigate the negative cross-border environmental consequences of the Tisza River contamination.

In coordination of the Secretariat for the Danube Region Strategy Ministerial Commissioner of Hungary, the disaster management services of Ukraine and Hungary have requested the support of the European Commission in January 2016, in order to comprehensively map out of the cross border environmental emergency situation at Solotvino. The abandoned salt mines continuously contaminate the Tisza River with unknown quantities of salt, while the residential buildings of the area are also under constant threat because of the quickly forming craters (some craters can reach depths of 110-120 meters, and can form in matter of hours). (source: www.danube-region.eu/communication/news/616578-eusdr-support-to-contain-the-emergency-situation-at-solotvino-salt-mine).



An exceptional presentation was given by Dr. Kanevskiy from High Technologies Institute Ltd. He introduced a prototype of sub-orbital gun launching platform.



In conclusion, the chair noted that readiness of the state to listen to experts is crucial. Despite the fact of ongoing reforms in the society, they cannot succeed if there is no balance and there is only a question of protecting the interests of the particular political groups and organizations. Cooperation is a must because the emergency preparedness and response system requires concerted efforts from all the relevant stakeholders. Also, it was pointed out that TIEMS is ready to support of the participation in collaborations for internationally harmonized standards.

The event was covered by 278 media representatives from 182 accredited media resources, including 15 foreign media such as the Press Agency of the Ministry of Defense of France, Jane's Defence Weekly, Associated Press, BBC News, Radio France Internationale, European Security and Defence Mittler Report Verlag, Lundi13, Phoenix Satellite Television Holdings Limited, Xinhua News Agency, Polskie radio, Polish Press Agency and others. The total number of exhibitors – 477 companies, including 45 companies from 16 foreign countries (China, USA, Switzerland, Sweden, United Arab Emirates, Belarus, Poland, Czech Republic, Italy, Israel, Great Britain, Belgium, Finland, France, Ireland). Over 18,000 professional visitors attended the exhibition throughout its duration. The representatives of approximately 100 companies from 24 countries (Canada, Sweden, Finland, France, Spain, Czech Republic, Poland, Lithuania, Latvia, Netherlands, UK, USA, Georgia, Belarus, Turkey, India, Pakistan, Kuwait, Egypt, Bangladesh, South Africa, Saudi Arabia, Bosnia and Herzegovina, Australia) were among the guests of the exhibitions.