

SYMPOSIUM ON INTEGRATED APPLICATIONS (B5)
Integrated Applications End-to-End Solutions (1)

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HUMANITARIAN CRISIS 2015. MAKING SPACE THE MOST EFFECTIVE

Abstract

Developing an effective mechanism to support crisis management and international humanitarian effort with space technologies is no longer a technical challenge. All necessary technologies are already available. What remains to be done is integrating them, but first and foremost implanting them into existing operational practices and procedures of humanitarian operations.

The other highly important aspects in communication with users are increasing awareness of available capabilities and building trust in space solutions reliability.

This paper starts from summarising capabilities of space applications that will be available in 2015. Next, the paper presents two realistic scenarios of events that can occur and may be dealt with by crisis response services and crisis management authorities with support of space applications. The first one is a large-scale chemical incident taking place close to the border of two EU countries. The second is a huge disaster, similar in scale to 2009 Haiti earthquake, occurring in developing countries and resulting not only in enormous destruction, but also interruption of political order and collapse of social structures. It is assumed that space capabilities integrated into common information environment were deployed during each crisis and the paper describes ways in which the humanitarian services use it.

The main output of the analysis is an identification of added value represented by integrated environment, both in reaction phase and in period of initial restoration. Importantly, the focus is not only on architecture and functionality of space elements, but also on doctrine of use of such capabilities.

The analysis is not a theoretical work. It will represent a foundation for further activities.

The workshop conducted in fall 2011 during Polish presidency of the European Union, focused on integrated space applications will represent a discussion platform, where challenges related to interoperability and standardisation of exchange of information will be discussed.

In 2012 some concepts will be operationally validated during Polish national crisis management trainings with use of Proteus system – the next generation civil C4I system for crisis management currently developed in Poland.

All the activities will cumulate in spring 2013 during, when large scale European-wide field training that will be organised by crisis management authorities in Poland within the framework of EU-funded project. Preparation for this training will be the opportunity to experimentally integrate space services into operational doctrine, validate several assumptions and should allow for better understanding and increased trust of humanitarian community in space capabilities.