

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

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AID FROM THE SKY OR CASE-STUDY OF THE INTERNATIONAL HUMANITARIAN
OPERATION SUPPORTED BY SPACE APPLICATIONS

Abstract

In the beginning of the XXI century we are living in the information age. Efficient use of information significantly influences warfare, enables better governance and it is a critical factor for business success. Surprisingly, in the field of crisis management, “information dominance” is still today highly difficult to achieve, mainly due to fragmented stream of information, limited by available means of communication and sources of information.

This paper presents a case-study – a scenario of international humanitarian operation launched in response to a large-scale disaster in Middle East. This effort is extensively supported with integrated use of space applications that enable a common information environment. EO data are used as a background (maps, strategic-level analysis), all information gathered are geo-referenced (with help of satellite navigation, when appropriate) and satellite communication represents medium of communication independent from ground infrastructure. Capabilities of space applications are not only available to all actors involved, but first and foremost, they are integrated into their operational procedures. The resulting information environment represents a common operational picture for different actors involved, including international organisations, government services and NGOs. Consequently, decisions taken independently by all these actors are better coordinated and the humanitarian effort is more efficient.

Use of a space-enabled information environment provides several advantages over the current situation:

- Information gathered during initial phase of operation by different actors (including local operations headquarters and international liaison officers) is integrated into common picture based on EO data
- Situational picture is made available to all actors involved (with controlled access for different users), enabling them to take more informed decisions
- Allocation of international medical and rescue teams is more appropriate to the reported needs
- Safety of international teams is increased
- Information provided during operation (including information from rescue teams, medical groups, NGOs) updates situational picture, allowing for better understanding of the general situation by all actors
- Delivery of humanitarian aid by different organisations is coordinated, correlated with reported needs and prioritised
- The situational picture represents background information that at the later stage may support launching reconstruction effort and provide international assistance in a more appropriate manner

Details of the presented common operational picture have been developed in close cooperation with users within the framework of the Proteus project – the next generation civil C4I system for crisis management developed in Poland. One of the elements of Proteus is an information environment supporting

common gathering and exchanging information between different actors involved in crisis management operation.