



Centrum
Informacji
Kryzysowej



Effective decision-making in crisis management – *you can see more from above*

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Copernicus - the road to economic development, 26-27 February 2015

Crisis Information Centre



- support for the State Fire Service, institutions responsible for crisis management and Polish non-governmental organizations while using the geospatial information and satellite imagery



- development of new methods and tools in this area
- development of applications of satellite technology
- testing of new pre-operational technical solutions

CIC partners

The cooperation with the State Fire Service is implemented on the basis of a permanent agreement between Space Research Centre PAS and Commander in Chief of the SFS.

CIC is also closely cooperating with several institutions and companies:



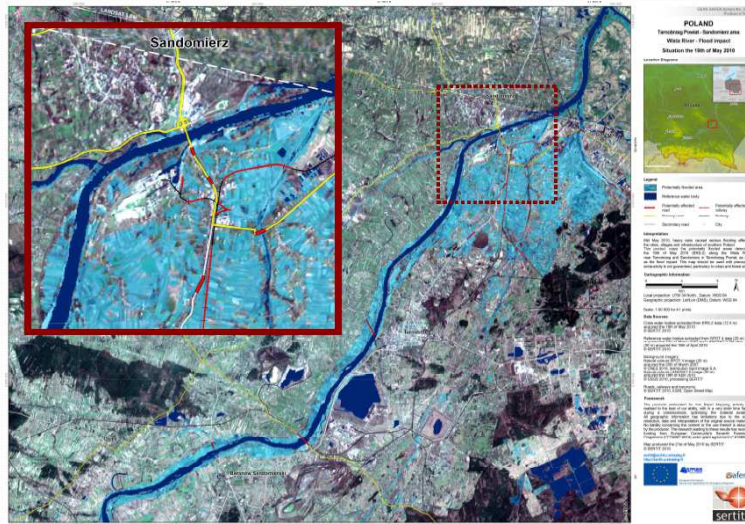
CIC team



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Flood in Poland 2010 – GMES Safer activation

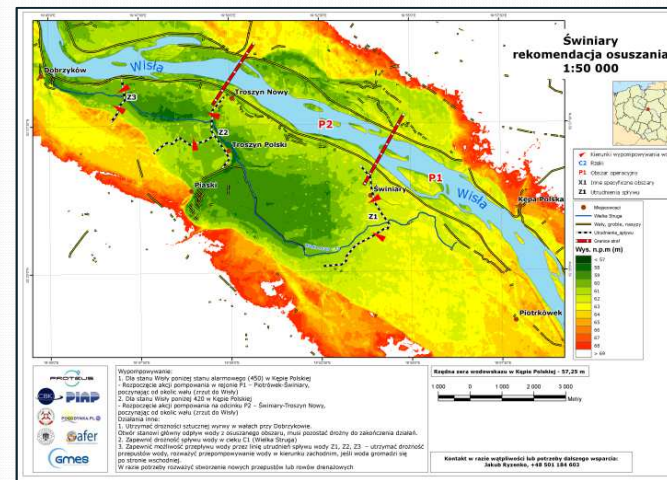
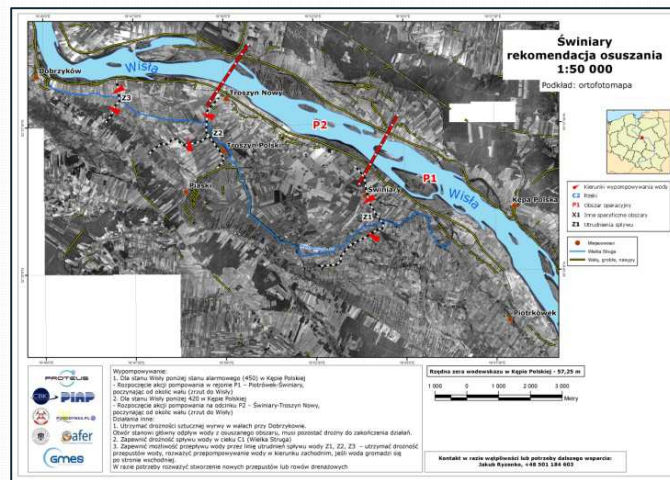
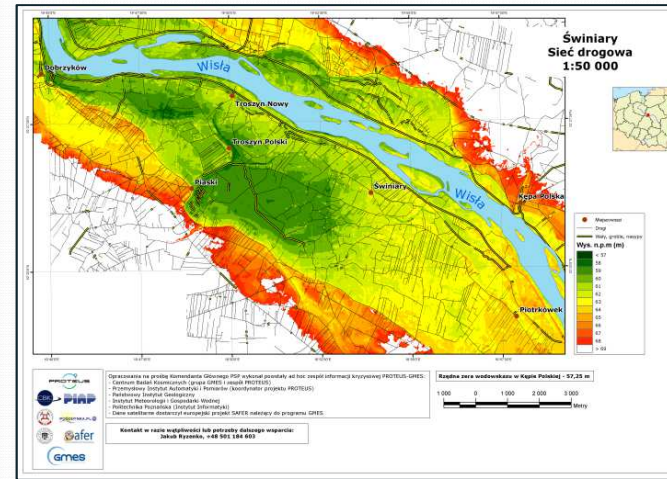
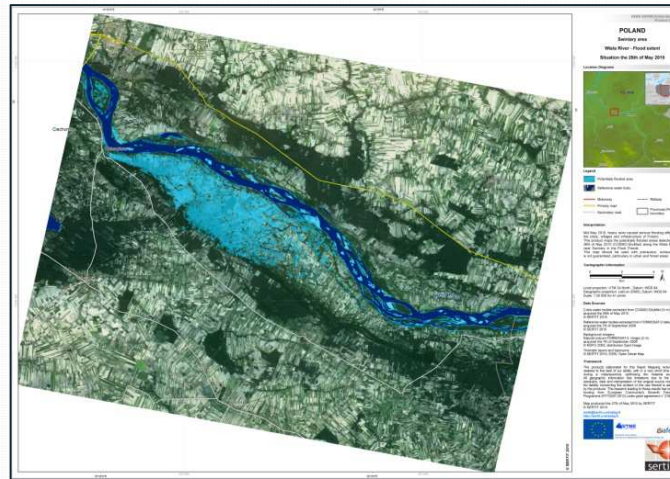
Tarnobrzeg Poviát
Vistula River Flood impact
Situation the 19th of May 2010



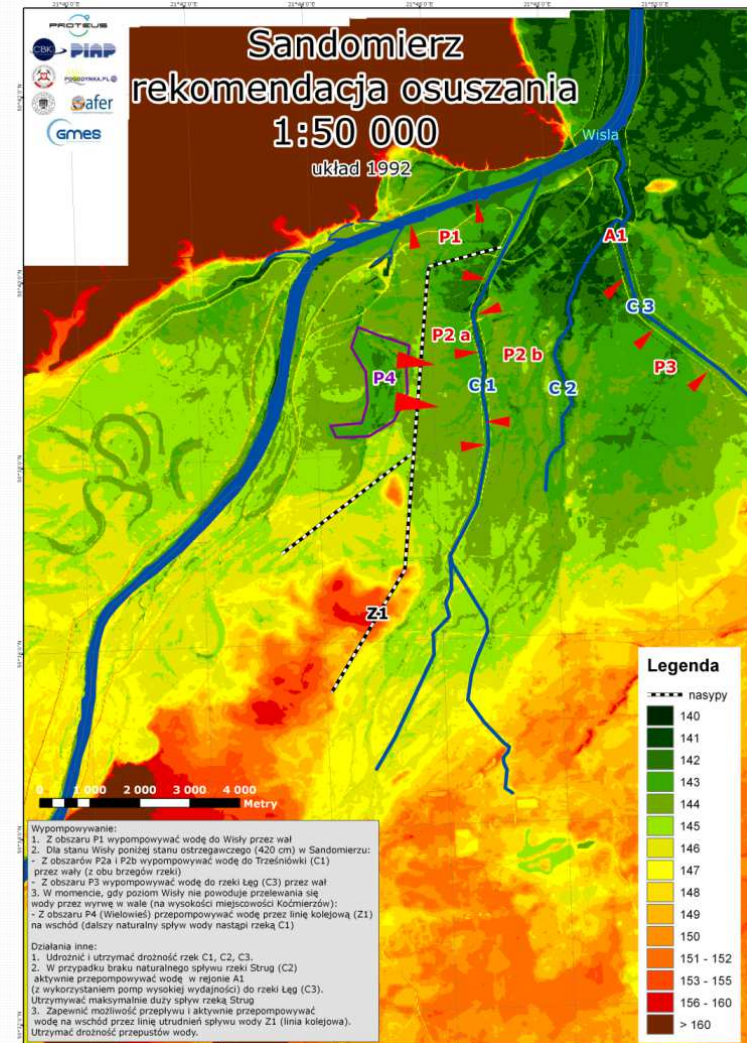
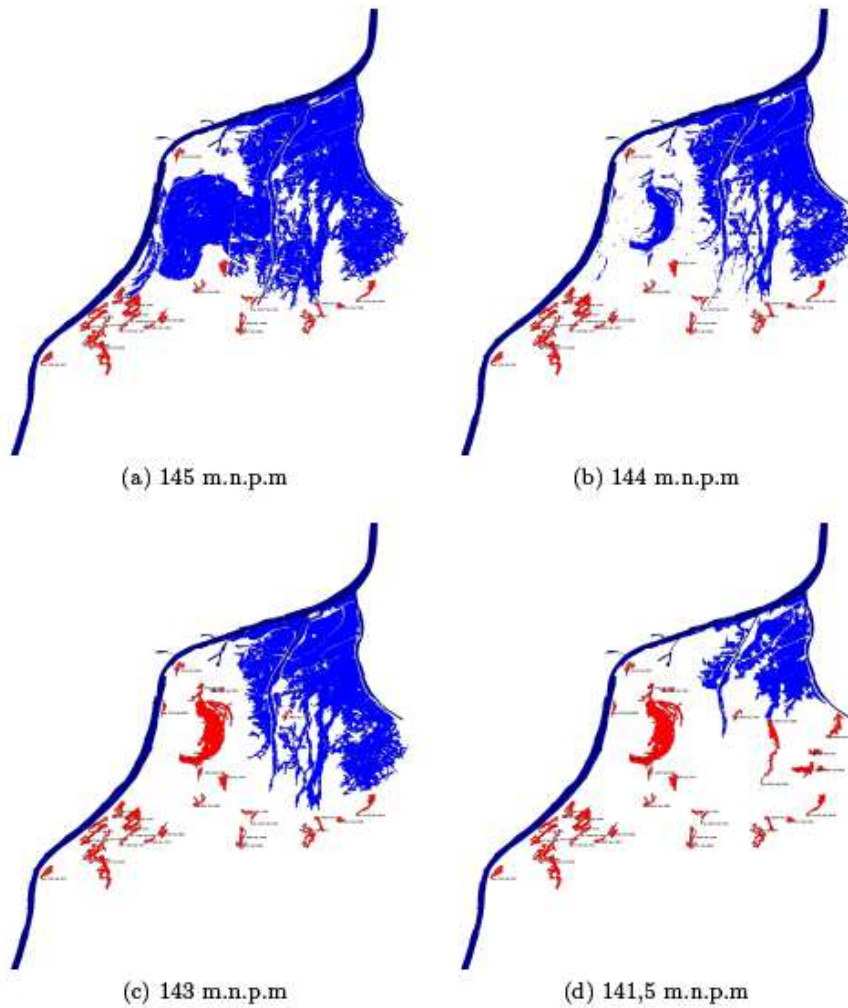
Tarnów, Kielce, Tarnobrzeg, Rzeszów Poviats
Vistula River Flood dynamics
21st and 23rd of May 2010



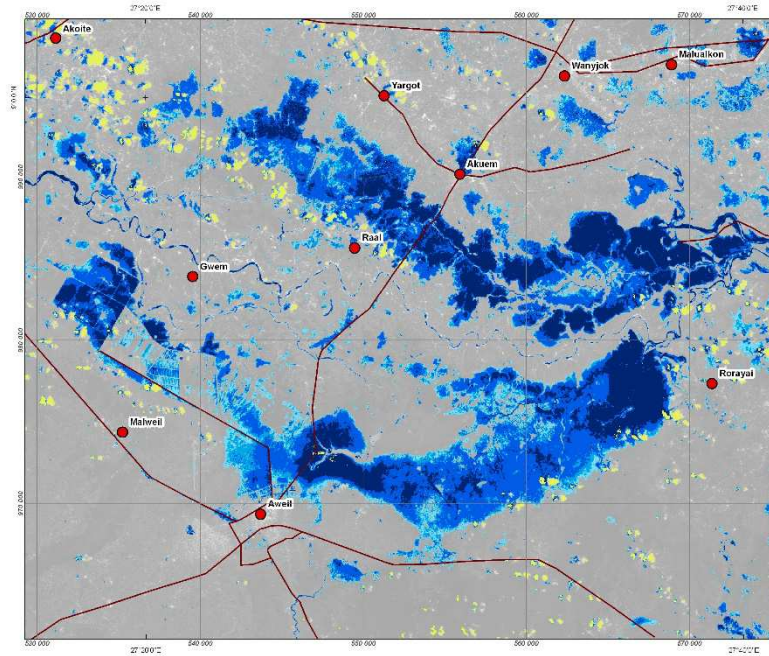
From satellite imagery to operational information



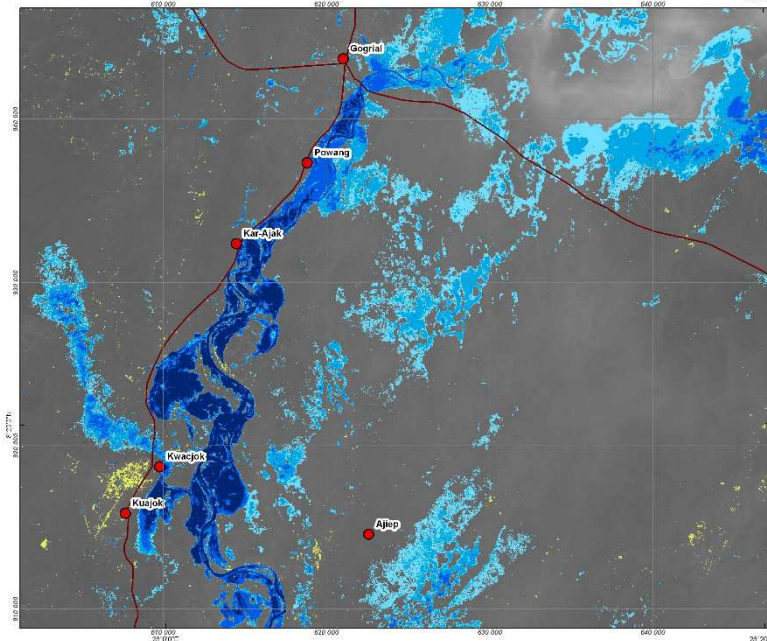
Flood simulations and recommendations



Flood in South Sudan



Bahr el Ghazal
Flood extent
September 04, 2013, 06:30 UTC



Warrap
Flood extent
September 13, 2013, 08:25 UTC

Map interpretation
 This map presents flood extent based on the analysis of satellite imagery captured on September 04 (South Sudan) - 13 (Warrap) and 2013. The flood extent is derived from the Soil Moisture and Ocean Salinity (SMOS) satellite data. The map is intended for informational purposes only and should not be used for navigation or other critical applications.

Geospatial information
 Topographic coordinates: UTM Zone 38Q
 Geographic coordinates: UTM Zone 38Q
 Note: Map data is valid for 2013.

Data sources
 Flood data: CIK, SDN
 Satellite data: SMOS
 Background: CIA, USGS, etc.

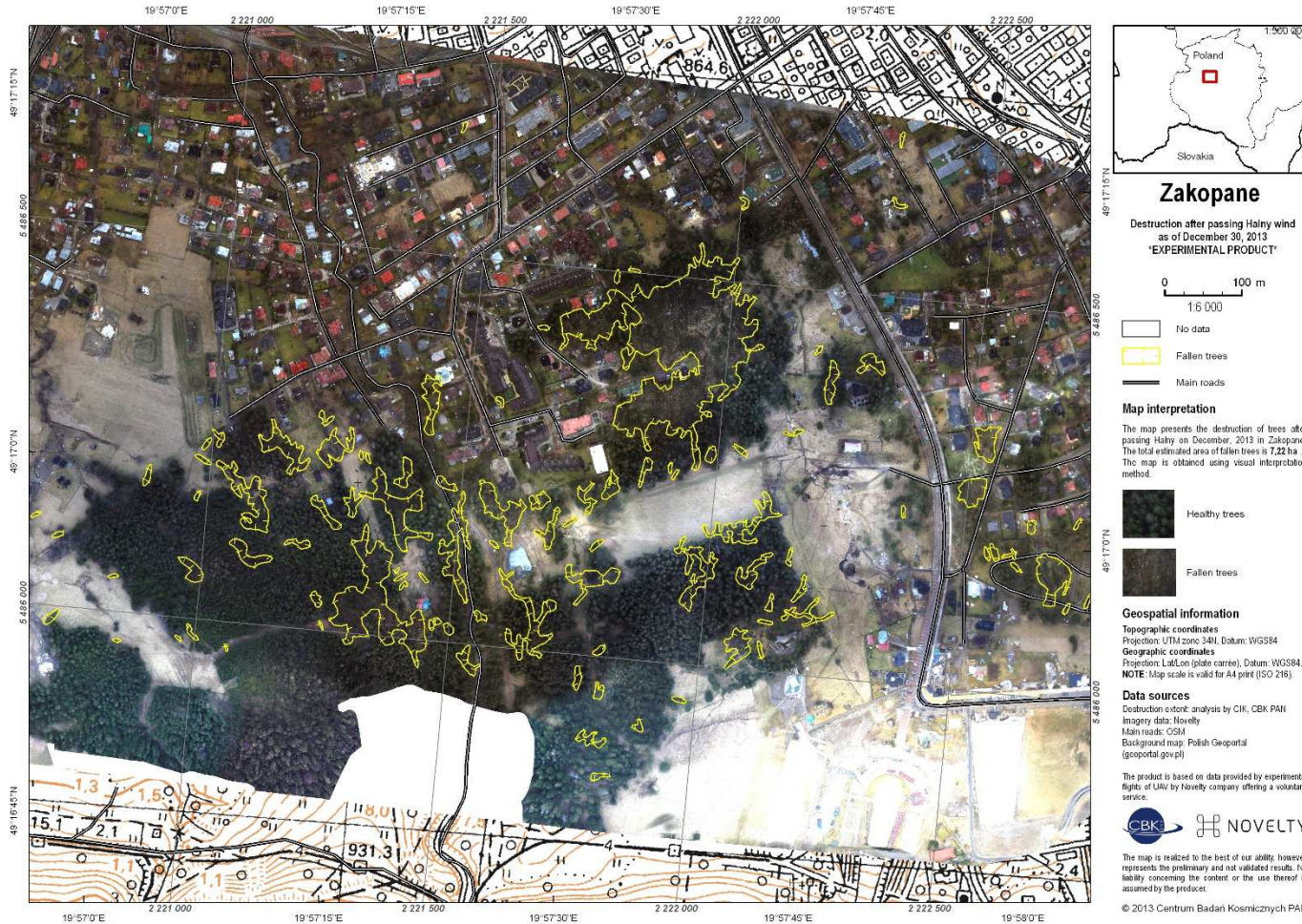
Logos: CIK, SDN, UN, etc.

Map prepared under the project: "Initiation of Floods in South Sudan and Coping Strategy of the Floods" - funded by the World Bank. The project is coordinated by the Joint Assessment and Coordination Group (JACG) of the Ministry of Foreign Affairs of the Republic of Poland.

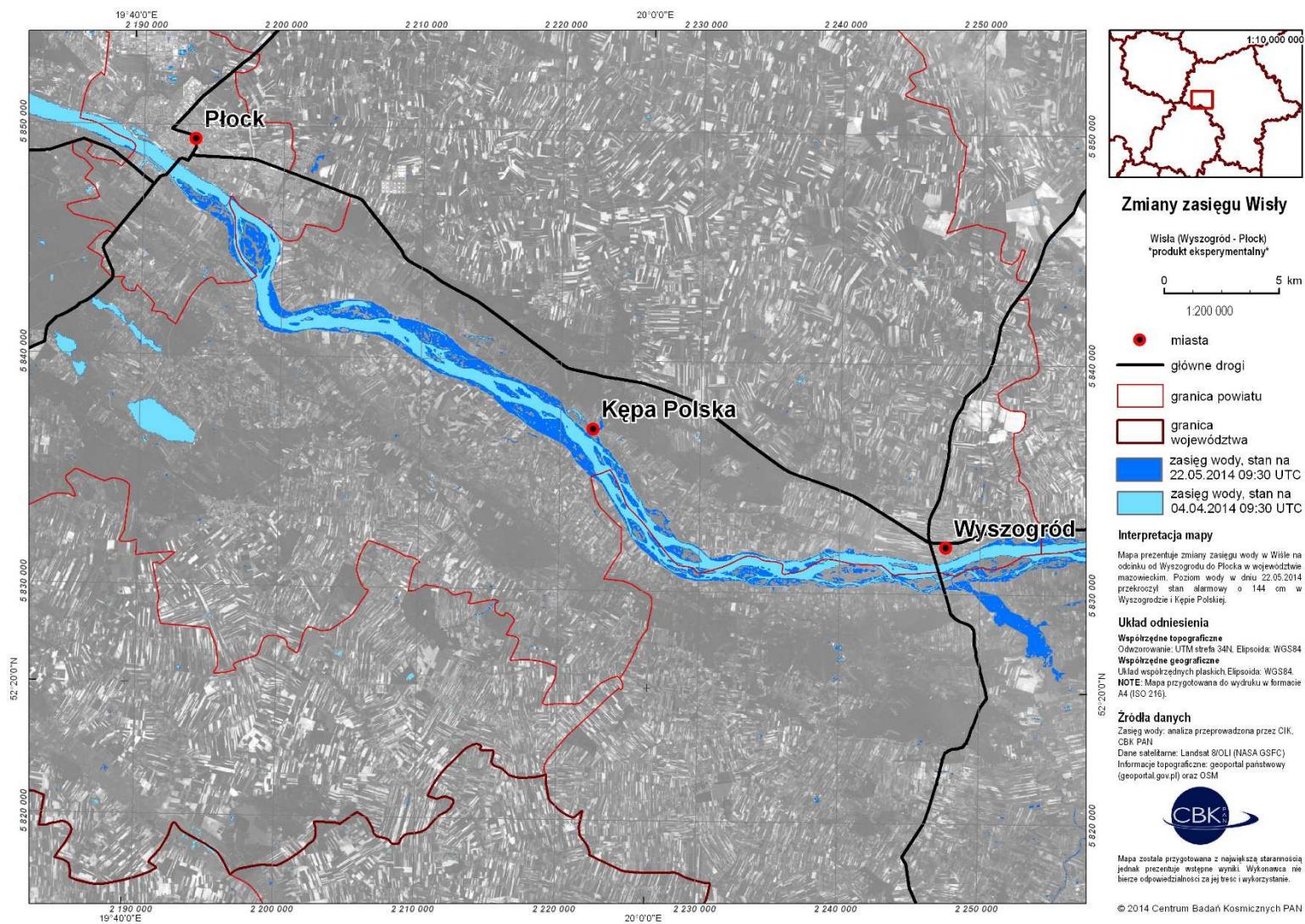
The map is issued on the basis of satellite imagery from the satellite and the data provided by the Ministry of Foreign Affairs of the Republic of Poland.

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Strong winds in the Tatra Mountains – EMS activation



Flooding on Vistula river



Participation in field exercises



Copernicus EMS achievements

- Effective access to Copernicus EMS products has been established
 - Awareness of possibilities
 - Procedures for requesting and distribution
 - Standardisation of products

... and challenges

- There is a need for a more effective use of provided information
 - Integration with user procedures



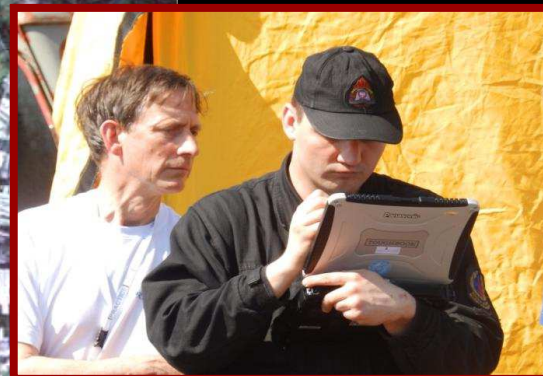
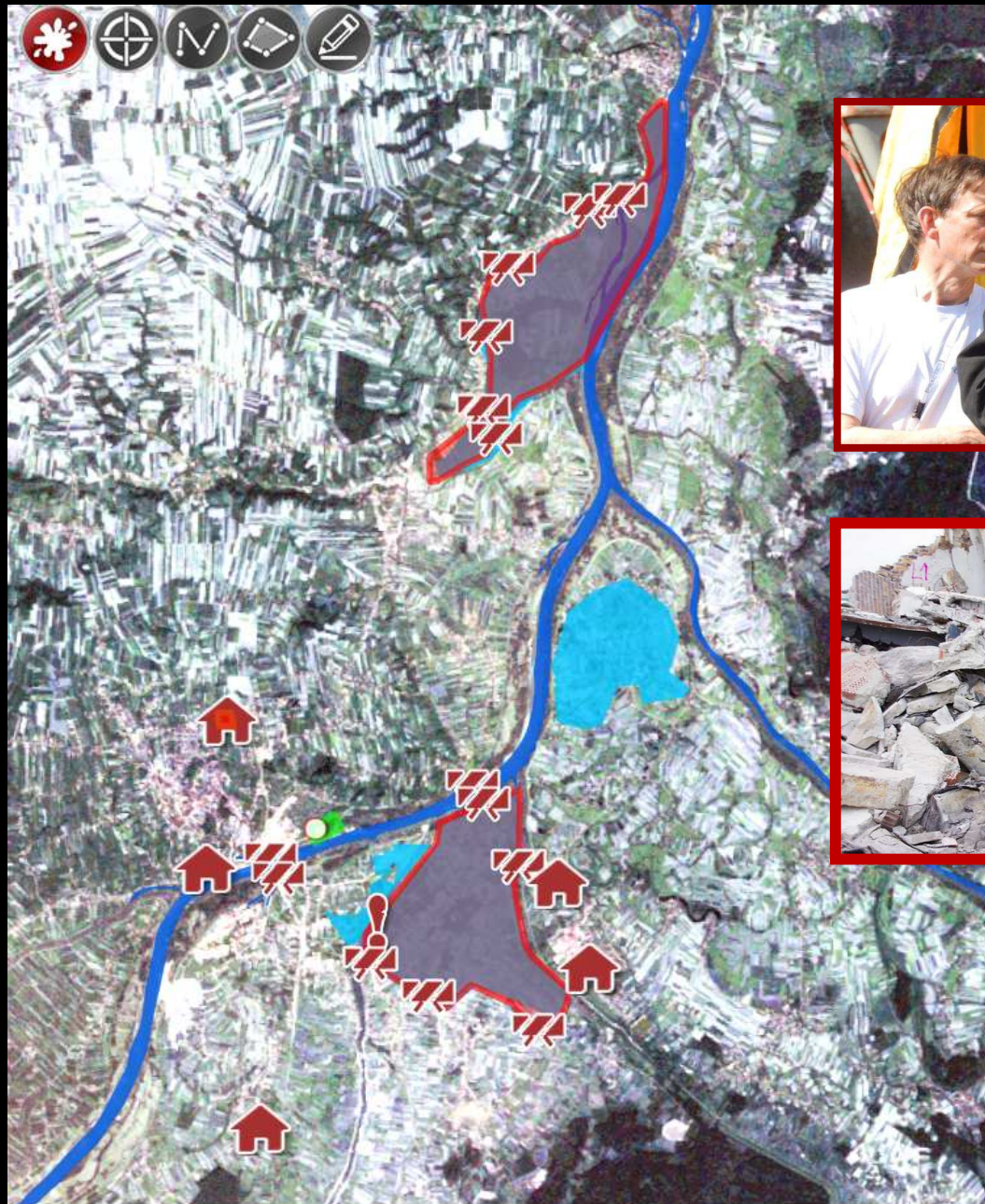
To provide the right information to the right people at the right time

Copernicus EMS achievements

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... and challenges

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 - Integration with other sources of information



WORKSHOP ON
USE OF SPACE
APPLICATIONS
IN HUMANITARIAN
OPERATIONS



Use of EO data and geolocation data in one environment



Plane: 51°26,519'N 15°34,148'E PAlt: 264m
Camera: 51°26,645'N 15°34,009'E CAlt: 0m
Range: 284m Azimuth: 325deg Tilt: 43deg

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Copernicus EMS achievements

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... and challenges

- There is a need for a more effective use of provided information
 - Integration with user procedures
 - Integration with other sources of information
 - Expert support (human interface for satellite-derived information)



Provide „human interface” to technical data

Key challenges for use of geoinformation in crisis management

- Efficient exchange of geoinformation
- Access to satellite data for crisis management entities
- Effective provision of information to the public

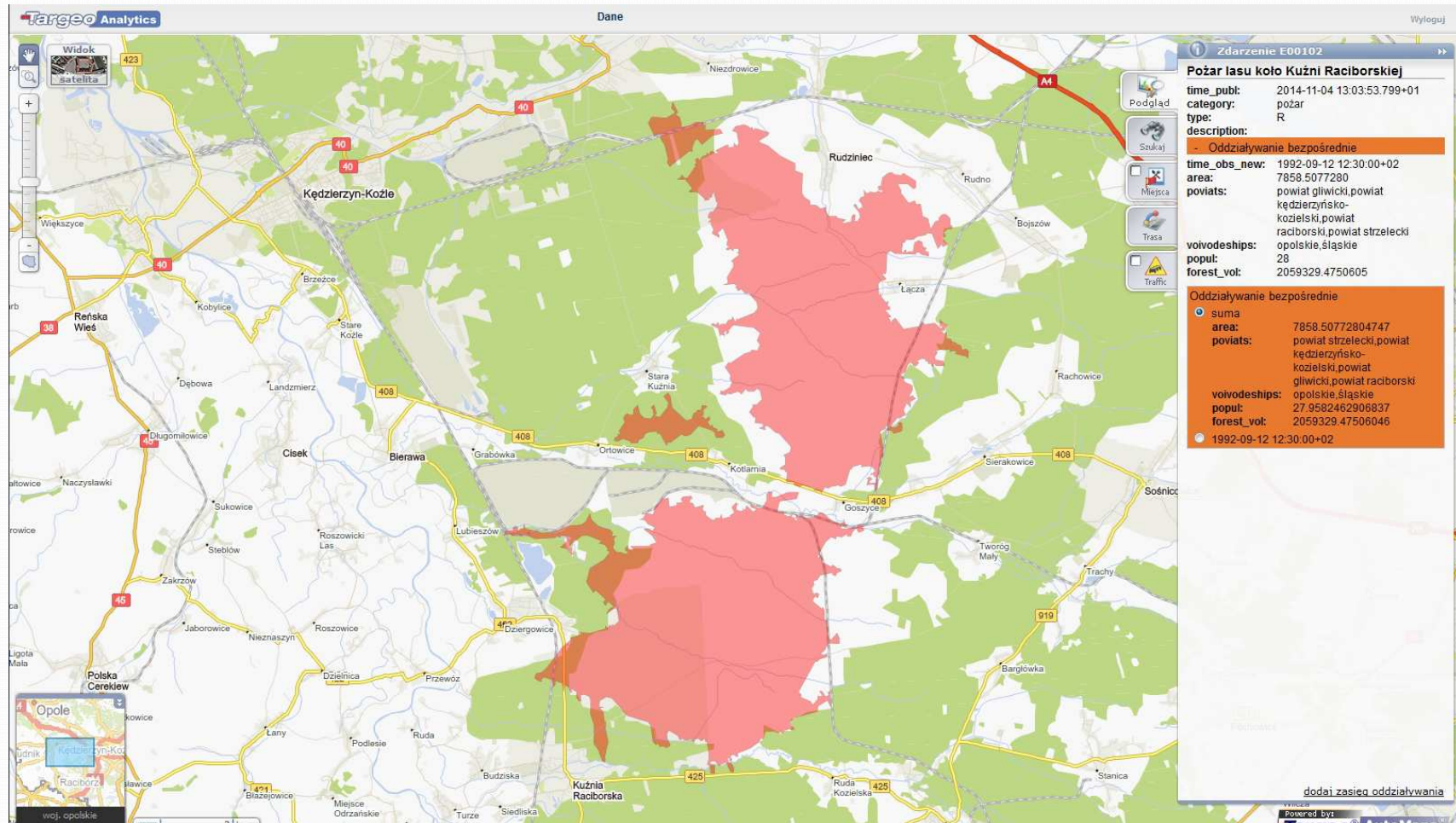
- Need to „develop solutions, leading to interoperability of space related technical systems and a coherent framework of operational procedures to use space-based applications for crisis management”

[8th Space Council, 2011]

Copernicus in the context

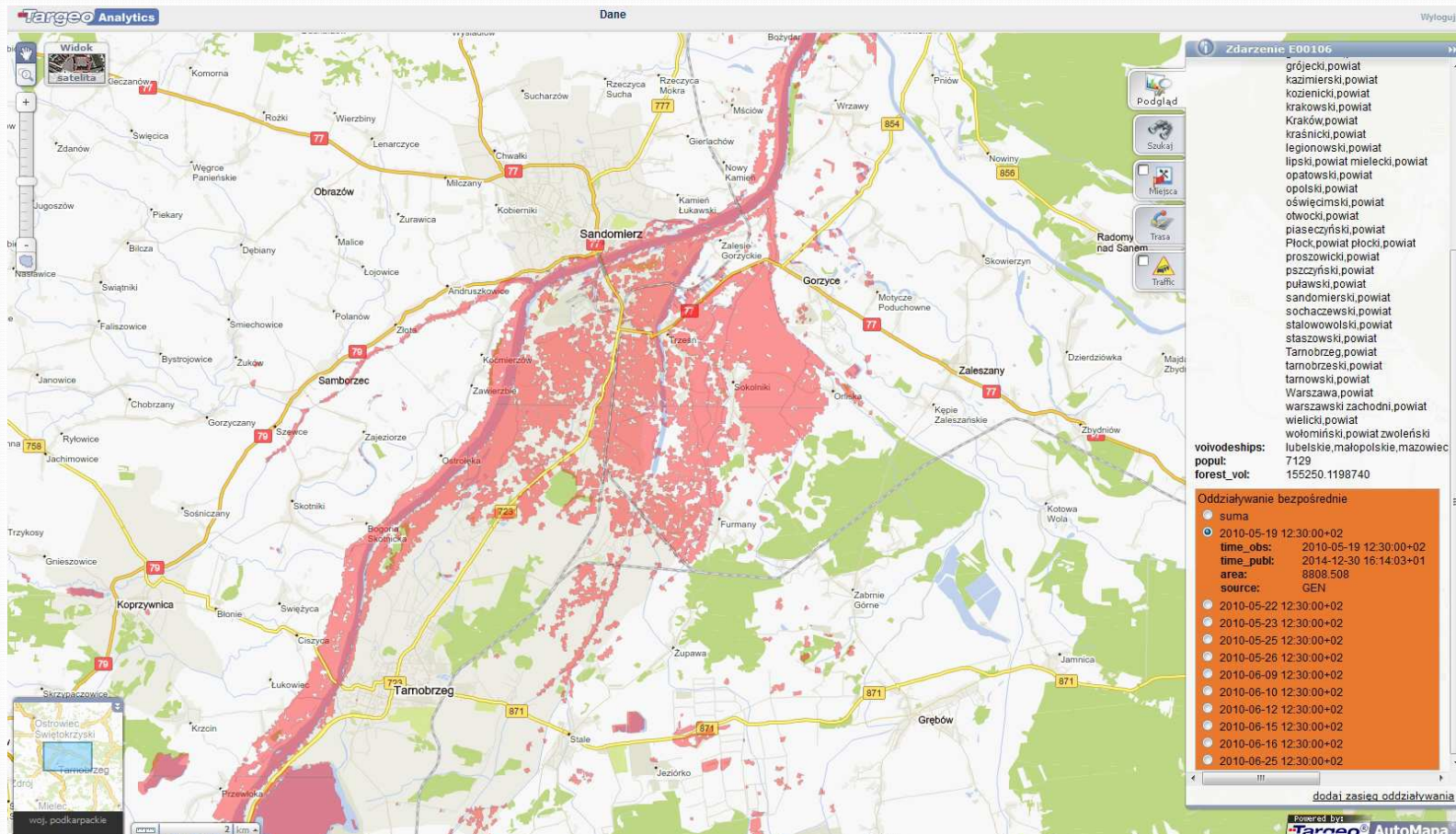
GECCO – a platform for exchange of geoinformation

Presentation of EO-based analysis of extent of events



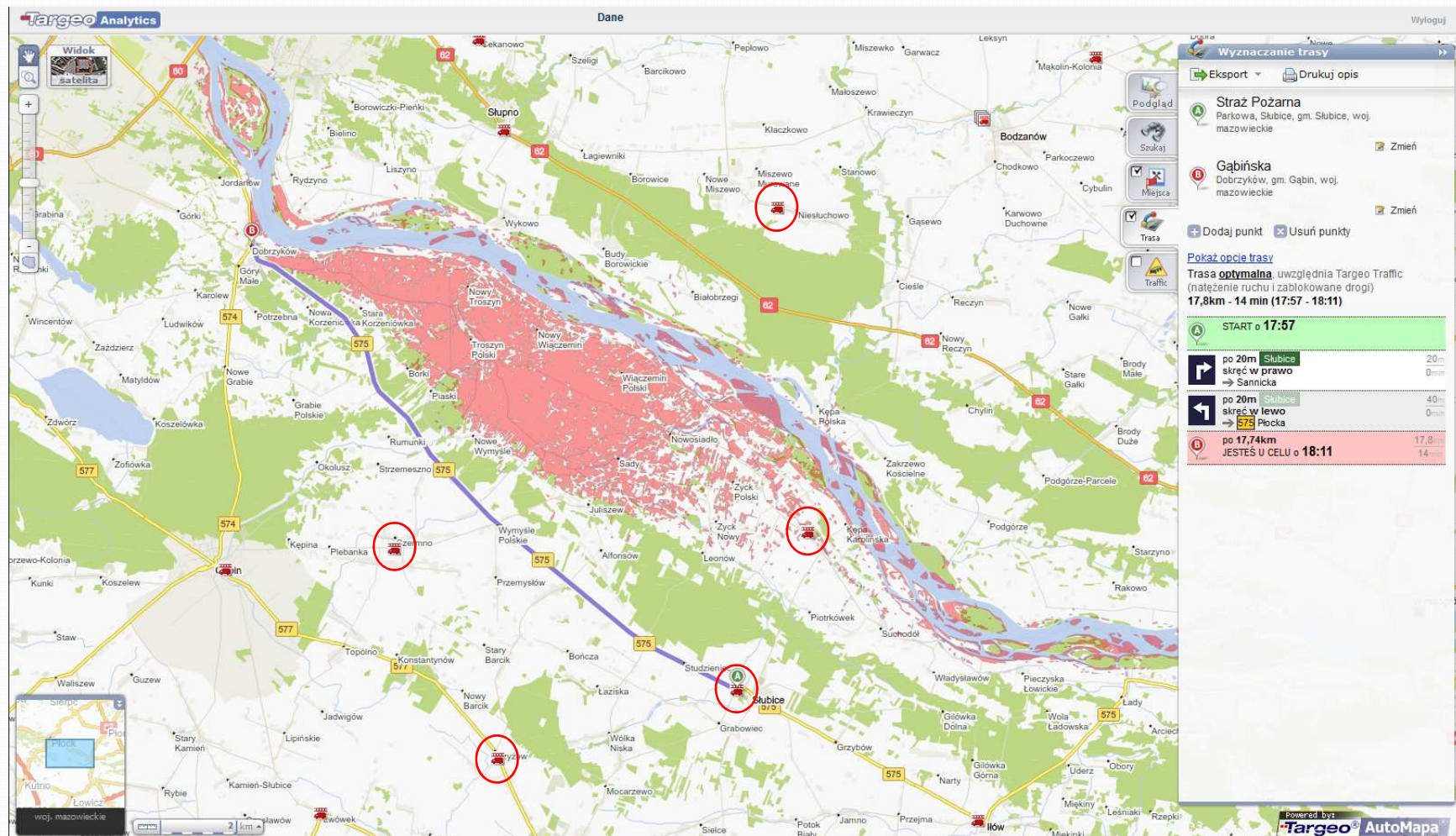
Fire in Kuźnia Raciborska in Poland in 1992 .

Possibility to integrate analysis based on different sources (satellite, aerial, UAVs)



Flood on Vistula River 2010 obtained from GMES Safer.

Calculation of the fastest route and access to categorized points of interests



Calculation of the fastest route and access to categorized points of interests



Project founding and consortium composition



GECCO project is funded by the Government of Poland through an ESA Contract under the Plan for European Cooperating States (PECS)

The GECCO consortium:



Main School of Fire Service
end-users group representation



Crisis Information Centre at Space Research Centre PAS
informational content



GEOSYSTEMS Polska Sp z o.o.
data storage and processing, professional and public portals



Astri Polska Sp. z o.o.
mobile application for professionals

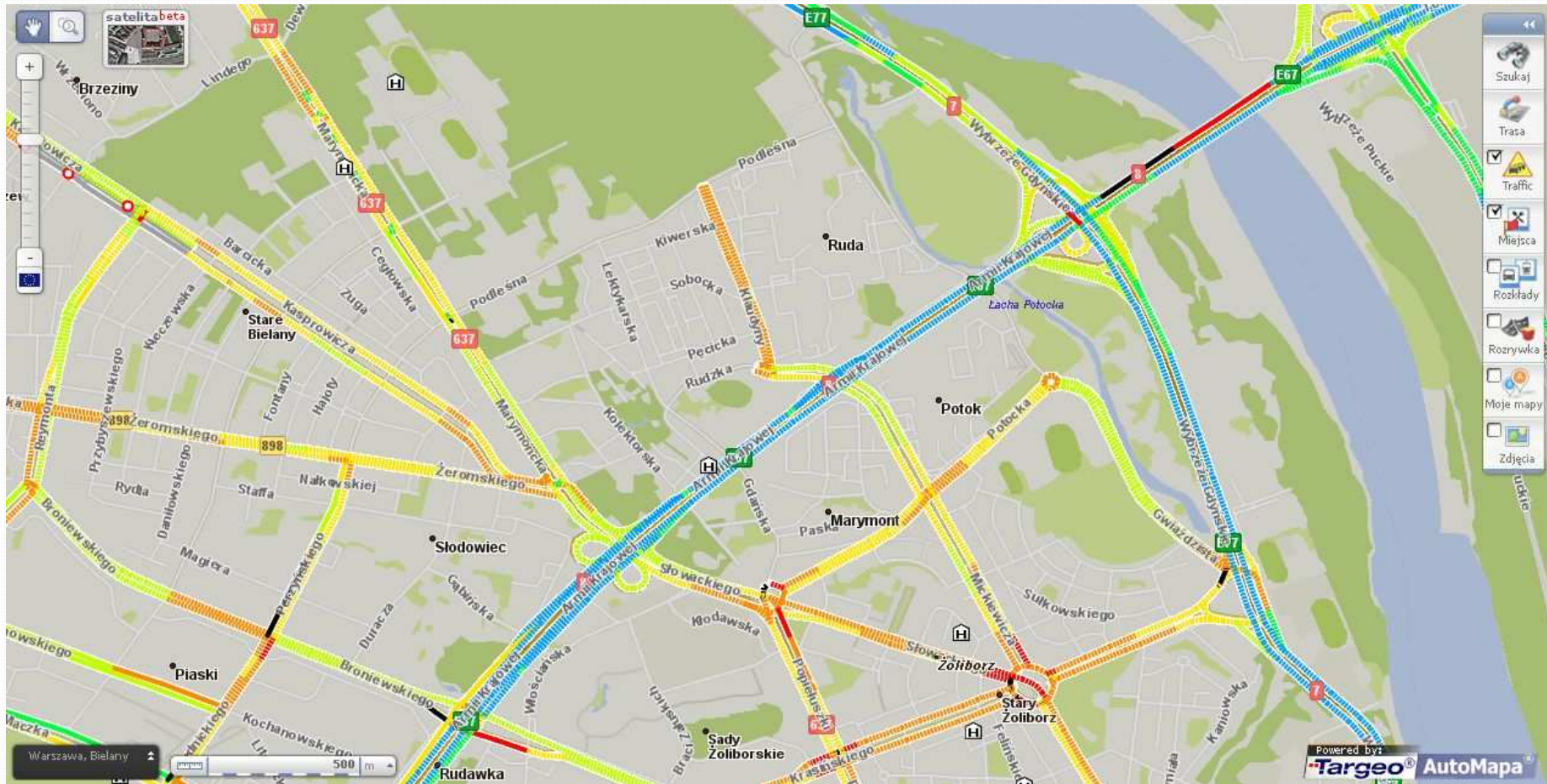


Simulation Games Manufacture Aleksander Sierżęga
mobile application for public users

Use of traffic information



Use of traffic information



Use of traffic information



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Information for the public



Information for the public





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Where can we be in 2016?

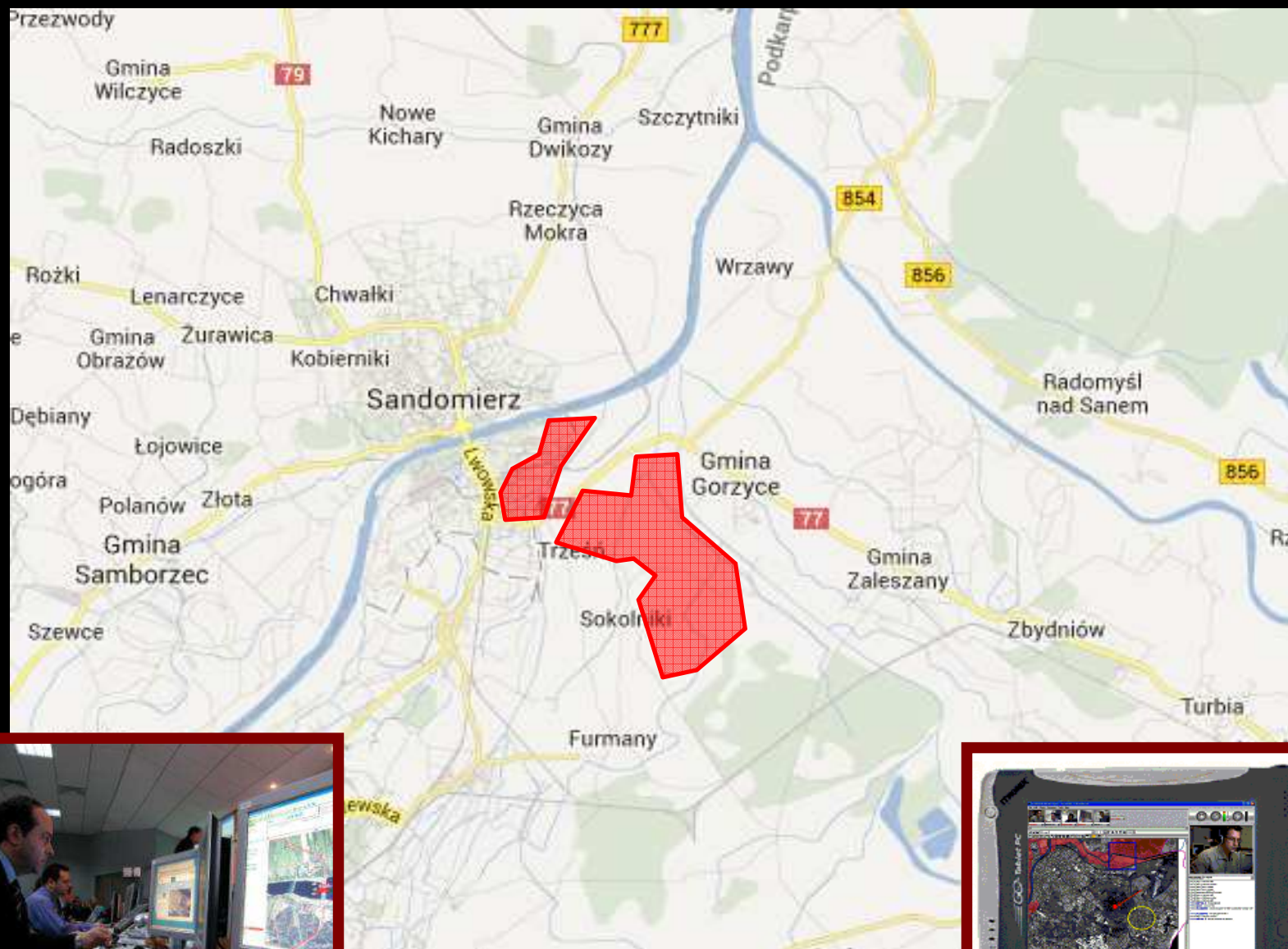
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Access to the most current maps

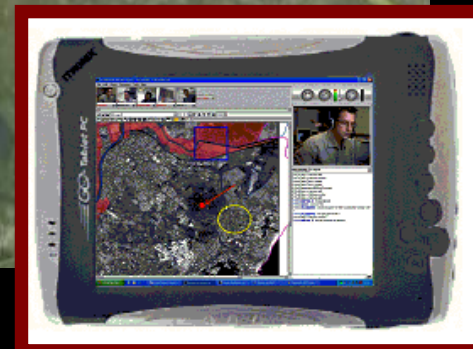
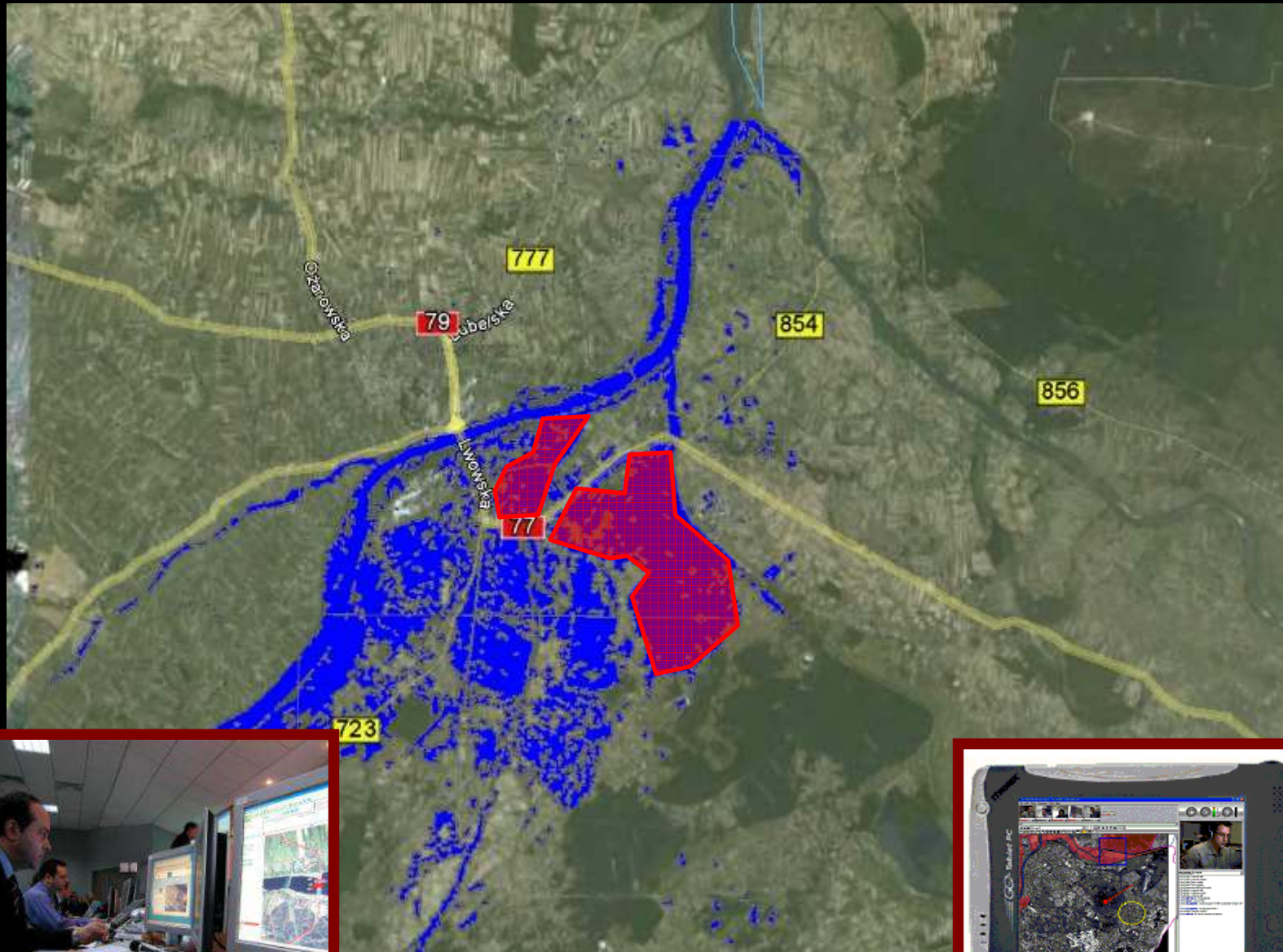




Common information – reports from the field

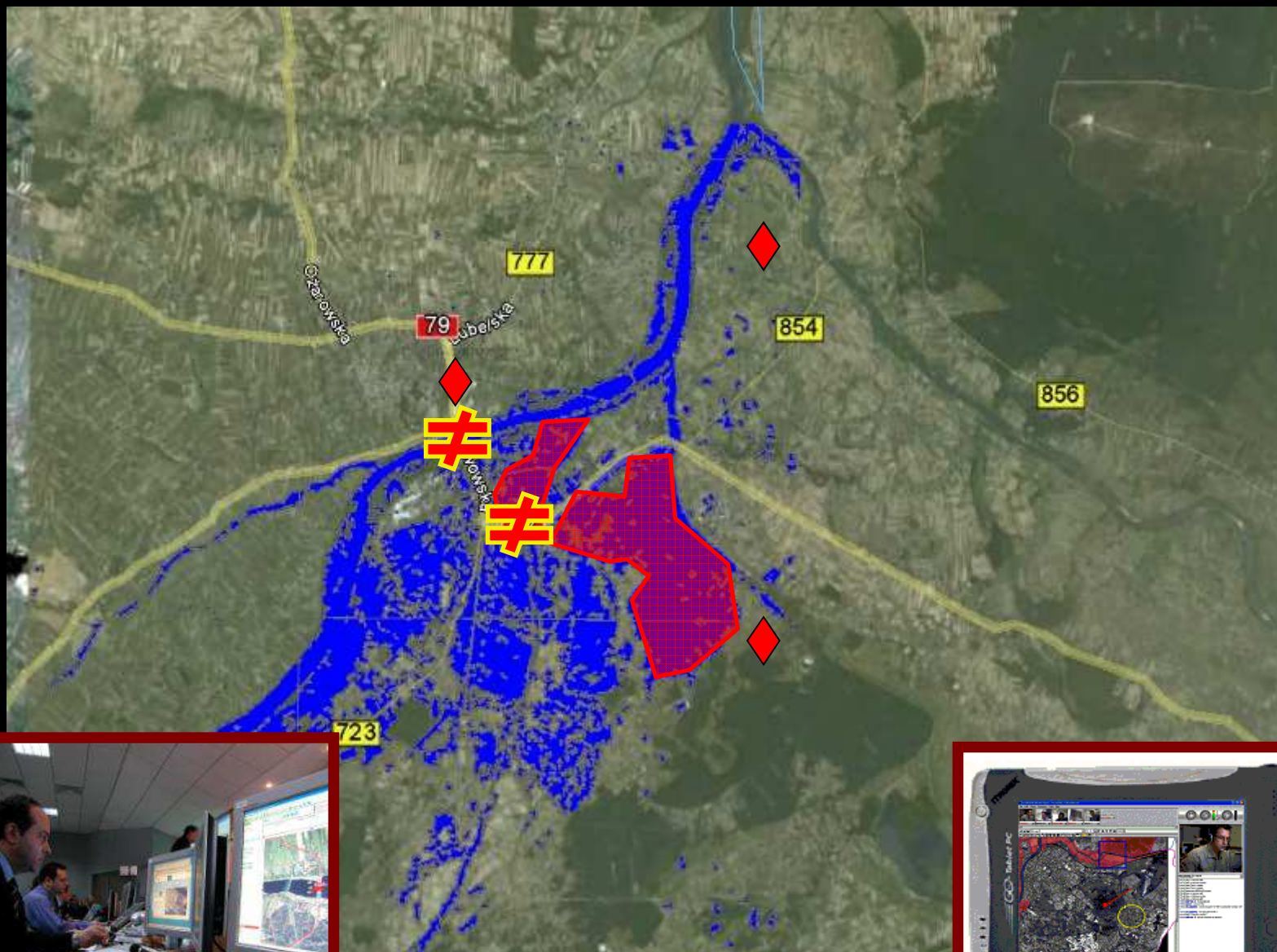


Common information – EO information updates





Common information – road availability





Common information – danger zones and alerts

